DOCUMENT RESUME

ED 120 148 95 SP 009 921

AUTHOR	Markley, O. W.
TITLE	The Normative Structure of Knowledge Production and Utilization in Education. Volume 2. Case Studies of the Infrastructure of Educational R and D.
INSTITUTION	Stanford Research Inst., Menlo Park, Calif. Educational Policy Research Center.
SPONS AGENCY	National Inst. of Education (DHEW), Washington, D.C.
REPORT NO	EPRC-3555-13
PUB DATE	Dec 75
CONTRACT	NIE-C-74-0133
NOTE	529p.; For related document, see SP 009 920
EDRS PRICE	MF-$1.00 HC-$28.79 Plus Postage
DESCRIPTORS	*Case Studies; *Educational Development; *Educational Policy; *Educational Research; Research and Development Centers

ABSTRACT

This is the second volume of a report on a study that (1) investigated the "normative structure" (the governance system) of knowledge production and utilization (KPU) activities in education, (2) developed an analytical framework through which to understand how formal policy acts as a "regulator" of activities in KPU, (3) described the major policies of significance to KPU and how they influence the governance of KPU processes in 10 different case studies, and (4) made recommendations that would help in the design of a monitoring program. This volume of the report demonstrates the use of the analytic framework and describes the substantive findings that resulted when the framework was applied to 10 different case studies. Some of the case studies described in this volume involve (1) the National Institute of Education policy, (2) the federal procurement policy and knowledge production utilization in education, (3) the Far West Laboratory as a research and development performer, (4) minicourses as an example of policies affecting the dissemination/utilization of a successful research and development product, (5) the School Mathematics Study Group Project as an example of Policies affecting the dissemination/utilization of an R and D product, and (6) the ESEA Title III Teacher Initiated Innovation Program. (RC)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

ED120148

THE NORMATIVE STRUCTURE
OF KNOWLEDGE PRODUCTION AND UTILIZATION IN EDUCATION

VOLUME II CASE STUDIES OF THE INFRASTRUCTURE OF EDUCATIONAL R&D

Research Report
EPRC 3555-13

Prepared for:

NATIONAL INSTITUTE OF EDUCATION
DEPARTMENT OF HEALTH, EDUCATION
AND WELFARE
WASHINGTON, D.C.

CONTRACT NIE-C-74-0133

EDUCATIONAL POLICY RESEARCH CENTER

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

STANFORD
RESEARCH
INSTITUTE

SRI

Menlo Park
California
94025

2

POLICY RESEARCH REPORT

A Policy Research Report is an official document of the Educational Policy Research Center. It presents results of work directed toward specific research objectives. The report is a comprehensive treatment of the objectives, scope, methodology, data, analyses, and conclusions, and presents the background, practical significance, and technical information required for a complete and full understanding of the research activity. The report is designed to be directly useful to educational policy makers.

RESEARCH MEMORANDUM

A Research Memorandum is a working paper that presents the results of work in progress. The purpose of the Research Memorandum is to invite comment on research in progress. It is a comprehensive treatment of a single research area or of a facet of a research area within a larger field of study. The Memorandum presents the background, objectives, scope, summary, and conclusions, as well as method and approach, in a condensed form. Since it presents views and conclusions drawn during the progress of research activity, it may be expanded or modified in the light of further research.

RESEARCH NOTE

A Research Note is a working paper that presents the results of study related to a single phase or factor of a research problem. It also may present preliminary exploration of an educational policy issue or an interim report which may later appear as a larger study. The purpose of the Research Note is to instigate discussion and criticism. It presents the concepts, findings, and/or conclusions of the author. It may be altered, expanded, or withdrawn at any time.

STANFORD RESEARCH INSTITUTE
Menlo Park, California 94025 · U.S.A.

SRI Project 3555 *December 1975*

Educational Policy Research Center

O. W. MARKLEY
Principal Investigator

Research Report

EPRC 3555-13

THE NORMATIVE STRUCTURE OF KNOWLEDGE PRODUCTION AND UTILIZATION IN EDUCATION

VOLUME II CASE STUDIES OF THE INFRASTRUCTURE OF EDUCATIONAL R&D

Prepared for:

NATIONAL INSTITUTE OF EDUCATION
DEPARTMENT OF HEALTH, EDUCATION
AND WELFARE
WASHINGTON, D.C.

CONTRACT NIE-C-74-0133

PREFACE

This is the second of two volumes constituting the final report of an 18-month study entitled "The Normative Structure of Knowledge Production and Utilization in Education," performed by Stanford Research Institute under contract to the National Institute of Education (NIE). Earlier reports and working papers produced as part of this study include:

- O. W. Markley, "The Normative Structure of Knowledge Production and Utilization: Interim Report" (December 1974).
- T. Mandel, "Development and Application of the Analytical Framework" (December 1974).
- R. Prewitt, "Functional Subsystems for Curriculum Reform" (December 1974).
- A. Zink, "Use of Mind or Behavior Modifying Techniques in Education" (December 1974).

The central objective of the study was to develop an analytical framework for describing the governance system that influences knowledge production and utilization (KPU) activities in education. In the first volume we describe the analytical framework, explain how it was developed, and discuss its implications for a research and development (R&D) monitoring program.

This volume demonstrates the use of the analytic framework and describes the substantive findings that resulted when the framework was applied to ten different case study topics.

This study is one of a series sponsored by NIE's R&D Systems Support Division in response to the recommendations of exploratory position papers such as "Building Capacity for Knowledge Production and Utilization in Education" (Task Force on Resources Planning and Analysis, 1973) and

"Modelling a National Educational R&D System" (Churchill, 1974). Under the direction of Dr. Ward Mason, the R&D Systems Support Division has responded to NIE's legislative mandate to help build an effective R&D system in education by pursuing three interrelated goals:

[illegible]. To develop a monitoring system that will lead to a systematic data base concerning educational knowledge production and utilization.

2. To initiate a series of studies that will:
    a. Develop models of the educational KPU process that lead to a greater understanding of applied system dynamics;
    b. Assess the status of the R&D system, the educational system, and the changes occurring in those systems;
    c. Identify problems and areas of weakness or imbalance in the educational KPU system for which NIE support activities are needed;
    d. Be useful to NIE policymakers, to the R&D and educational communities, and to the general public.
3. To design and manage specific programs for strengthening the educational KPU system.

Related investigations supported by the R&D Systems Support Division include:

- William Paisley and associates at Stanford University, preparing the first two editions of a Databook and a separate technical report in which they will analyze existing data bases and make recommendations for the development of a more coherent system of statistical indicators regarding the status of KPU in education.
- Rolf Lemming at NIE, conducting a survey of various institutional performers of KPU in education.
- Michael Radnor at Northwestern University, studying R&D systems in such areas as agriculture, aerospace, and defense to deduce applicable principles for R&D management in education.

- David Clark and Egon Guba at Indiana University, studying the KPU-related roles of departments, schools, and colleges of education.

These studies constitute a set of preliminary "predesign" studies that should illuminate the actual design of a monitoring system at a later date.

CONTENTS

PREFACE. iii

ACKNOWLEDGMENTS. ix

GLOSSARY xi

SUMMARY. xv

I National Institute of Education (NIE) Allocation Policy I-1

II Federal Procurement Policy and Knowledge Production and Utilization in Education II-1

III Assessing the Impact of Policies that Control the Availability of Information. III-1

IV The Far West Laboratory as a Research and Development Performer. IV-1

V Minicourses as an Example of Policies Affecting the Dissemination/Utilization of a Successful R&D Product. . . V-1

VI The School Mathematics Study Group (SMSG) Project as an Example of Policies Affecting the Dissemination/Utilization of an R&D Product. VI-1

VII ESEA Title III Teacher Initiated Innovation Program: An Example of Policies Interfacing Levels of Government. . VII-1

VIII The Governance of Knowledge Production and Utilization in Intermediate Service Agencies: Boards of Cooperative Educational Services in Colorado and New York. VIII-1

IX Policies Affecting the Results of the Federally Sponsored Pilot State Dissemination Program in South Carolina: 1970-73 . . . . IX-1

X An Approach to Monitoring the Role of Government Policies in the Process for Selection and Evaluation of New Instructional Materials X-1

ACKNOWLEDGMENTS

The persons who served either full or parttime on the project research staff are Myra Hodgson, Harry Kincaid, David Lombardi, Patti Lynch, Thomas Mandel, O. W. Markley, Arni McKinley, Ruth Miller, Robert Prewitt, Robert Quick, Lee Sproul, Gary Sykes, Victor Walling, and Allen Zink. The first three chapters of Volume One were drafted by Victor Walling, the final chapter by O. W. Markley, and the appendices by Thomas Mandel. Author credit for each case study is noted in Volume Two.

Thomas Thomas was the project supervisor. Acting as an advisory committee were Hendrick Gideonse, Willis Harman, Michael Kirst, Philip Sorenson, and Norman Storer. Stacy Churchill and Joseph Brunon were project consultants.

Ward Mason, project officer, and Raymond Wormwood, contracts officer, are both at the National Institute of Education (NIE). Russell Fey, contracts administrator, is at SRI.

As with other research efforts entailing the production and use of knowledge in education, many other individuals contributed their time and expertise. The willingness of all of these persons to cooperate in this project is gratefully acknowledged.

GLOSSARY

Agent	A legally responsible entity, one or more persons concerned with any phase of the KPU system, including individuals, teams of persons, and institutions that act in a relatively unitary fashion. The terms agency and actor may also be used where convenient to distinguish the institution from the institution's representative person.
Analytic framework	A conceptual structure that guides inquiry into and analysis of KPU in education.
Conceptual subsystems	Subsystems that follow from a particular way of conceptualizing the system under study.
Configuration	An image or description of a portion (or a whole) of the KPU infrastructure as developed from a particular perspective. A configuration is an arrangement of a set of features and distinctions made by an analyst who guides his inquiry with a particular purpose.
Field of analysis	The environment and ecology of the focus of analysis.
Focus of analysis	The agents, activities, policies, and resources of central concern to a specific purpose of analysis.
Functional subsystems	Subsystems that emerge empirically to accomplish a particular function in the larger system under study.
Infrastructure	The interrelated elements through which the process of knowledge production and utilization in education takes place.
KPU	The sum of innovative activities ranging from basic research to installation of new practices through which new knowledge is produced and used in education. The term is broader than simply research and development, incorporating as well the linkage of the research and development activities and the utilization of their products. Such activities as evaluation, demonstration, dissemination, diffusion,

	policy studies, or policy research are to be considered as components of the four basic KPU activity categories of research, development, linkage, and utilization.
Normative structure	The set of values and principles (both formal policies and informal norms) that guide behavior concerned with the production, dissemination, and utilization of educational knowledge.
Purposive activities	A set of actions that reflect or build toward the intent of some formal statement of goals or norms, or what we call formal policy. (See goal oriented activity.)
Resources	The matter, energy, and information needed to engage in a particular activity. Resources consumed and/or transformed by agents into other resources include money, educational products, information, individual skills, and the like.

In our discussion of Phase 2 of the project we abandoned a number of terms used in our discussion of Phase 1. We did this for the following reasons: either we could replace them with new terms that more closely describe the concept; or we did not mention the concept itself in our discussion of Phase 2.

To assist the reader in understanding the discussion of Phase 1 we list and explain these abandoned terms below. The terms have been segregated from the rest of the glossary to emphasize the fact that they have been abandoned or replaced by new terminology in the discussion of Phase 2 of the project.

Flow	The movement of resources and influences through the EKPU system.
Goal oriented Activity	Activity evaluated against and modified to serve some intent. (See purposive activity.)
Process loop	A prescribed and time-sequenced series of actions incorporating planning and evaluation and directed toward the accomplishment of an objective.

Public Policy Regulators (PPRs)	Directives that are codified and have a legal basis. Examples include statutory law, codes of ethics, certification evaluation and planning requirements, formal incentives, and budgetary priorities. Excluded from this subset are informal norms, unwritten procedural conventions, and the observed behavior patterns of regulatory agents.
Regulators	The various norms, rules, laws, procedural conventions, and observed behavioral patterns of regulatory agents that constitute the normative structure of the KPU system.
Regulatory agent	An agent responsible for establishing, changing, or implementing one regulator or a set of regulators.

SUMMARY

This project is one of several predesign studies commissioned by the National Institute of Education's R&D System Support Program to help the Institute establish design requirements for an external monitoring system it has proposed to develop. The pursuit of such a monitoring capability is in direct response to NIE's congressionally bestowed mission to "help build an effective R&D system" as well as its own recognition that "there is a great need for better data concerning the knowledge production and utilization system and the operating school system it serves .... Generally we have lacked both the data base and the understanding of system dynamics needed for effective, rational policy-making." This use of the term knowledge production and utilization (KPU) stems from the Institute's recognition that research and development is a misleadingly narrow term to apply to improvement-oriented change activities in education and that a more encompassing conception is needed to adequately legitimize the full range of activities necessary to help solve or to alleviate the problems of American education.

The central objectives of this study were to investigate the "normative structure" (the governance system) of KPU; develop an analytical framework through which to understand how formal policy acts as a "regulator" of activities in KPU; describe the major policies of significance to KPU and how they influence the governance of KPU processes in ten different case studies selected to be widely representative of KPU in education; and make recommendations that would help in the design of a monitoring program. As a whole, the effort was conceived of as an exploratory attempt to develop and test the feasibility of a systems mapping approach believed to be compatible with the concepts that NIE

proposed for use in its monitoring program. As with many systems studies, the study was designed in a recursive fashion, where the results of an initial period of inquiry were assessed and the study design was reformulated before proceeding further.

In our first approach, we sought to:

- Construct an extensive taxonomy through which all major types of agents, policies, flows, and several other regulatory influences on KPU could be classified and assigned a code for indexing purposes.
- Develop a basic master system map (to provide consistency and coherence as detailed maps of KPU subsystems were developed) showing all major agents and on which all major information, product, and resource flows could be depicted.
- Apply a variety of commonly used systems analysis tools and techniques in concert with the maps, the taxonomy, and other information in such sources as ERIC and the Databook being prepared in a parallel study to describe KPU phenomena in a way that would integrate four different modes of description:
  - Typological--a multidimensional classification of agents, policies, flows, and other aspects of KPU in education and its governance structure.
  - Graphical--a series of diagrams that reveal the static and dynamic relationships of various KPU system elements.
  - Numerical--time-series and other indicators that express the quantified attributes of the system and its parts.
  - Textual--verbal descriptions of research findings, laws, guidelines, and other information that expresses nonquantified and non-imagistic attributes of the system and its parts.

Because of the emphasis on the role of formal policies which help regulate or govern KPU, and on the role that time-series indicators might have in monitoring KPU, the conceptual image or paradigm initially explored could be characterized as essentially that of hierarchical systems.

Regardless of how one might view the desirability of its attributes, this approach was found to be unfeasible as a framework for investigation and analysis of KPU in education. KPU is a secondary goal for most agents and institutions in the KPU infrastructure; hence the involvement of many of these agents and institutions is ad hoc or purpose specific. Unless one first specifies fairly precisely what it is one wants to know about the KPU infrastructure, efforts to map KPU as a system with various subsystems must be done either at such a high level of abstraction that the level of detail is inadequate for realistic analysis or at such a high level of concrete detail that the portrayal falls down under its own weight, given the limitations of available media. Moreover, there is not merely one perspective from which to map KPU, but many, each of which illuminates a different set of relationships underlying KPU phenomena.

We therefore revised our basic strategy and relied on our inquiry in the ten case topics to guide the development of a framework that could be used to describe various aspects of KPU as seen from various perspectives and for various purposes, rather than to test the feasibility of one that would fit any given part of KPU into an overall general map of hierarchically ordered classifications. Policies, agents, resources, and activities in KPU were the four basic terms of reference that we used as the basic building blocks in this new pursuit. As requested by NIE, we developed a finished taxonomy only for formal policies.

In pursuing this strategy we developed a flexible methodology that allows the researcher to describe the interaction of various configurations of policies, agents, and resources in the shaping of activities through which specific acts or processes of knowledge production and utilization take place. The methodology allows one to see systemic relationships without forcing one to systematize them in an overly simplistic fashion. To do this requires that the purpose of analysis at least be tentatively established by the analyst to provide a basis on which to make distinctions and draw connections and inferences. (A first distinction the analyst makes, for example, is between the focus of his interest and its surroundings. A second distinction concerns the extent to which relationships involving parts of a given configuration, the configuration itself, or the environment of the configuration should be explored.)

From the results of our exploratory study, we judge that NIE's stated objectives for its monitoring program cannot feasibly be fulfilled by a system based on the social indicators approach. Although this approach is particularly suitable for improving understanding of some activities in some parts of the KPU infrastructure (e.g., those activities having to do with the distribution and control of fiscal resources that are highly specified by formal policy), it is particularly unsuitable for improving understanding of others (e.g., those activities relating to the actual creation and use of new knowledge that are highly discretionary in nature).

A variety of recommendations for development of the monitoring program were inferred from the findings of the project.

- NIE should consider and include a variety of conceptual viewpoints in the design of its monitoring program.
- The design of the monitoring program should be based, in part, on an explicit consideration of such definitive issues as:
    - The degree to which NIE's monitoring program will be based on any given conceptualization or paradigm as opposed to being based on a deliberate or haphazard mixture of conceptual approaches.

  - The degree to which NIE will try to rigorously articulate (i.e., codesign and coordinate) its monitoring program and its other governance functions.
  - The degree to which new knowledge will be conceptually limited to include only that which results from processes and/or products of the institutionalized KPU system.
  - The degree to which data needs and data collection activities of other agencies (particularly at the state level) will be explicitly considered in the design of the monitoring program.
- The design of a monitoring program should, in large part, be based on the types of information about the KPU infrastructure that will actually be needed by major policy analysis activities anticipated for the next several years. Thus a policy analysis information-needs assessment should be done as an additional "predesign" study.
- The assessment of likely impacts of the Buckley Amendment on KPU is an immediate activity that well-represents a type of policy analysis that will increasingly need information about the infrastructure of KPU in the future and should be undertaken both for its own sake and as a way of concretely facing various trade-offs in the design of the monitoring program.
- As a first step in the development of time-series indicators of balance and continuity of support in KPU (as well as to provide information of vital interest to NIE's constituency), NIE should prepare cross-tabulations of its disbursements in various categories (such as mode of procurement, substantive topic, type of performer) for inclusion in subsequent editions of its Databook.

The final report of this study comprises two volumes, the first of which describes the conduct of the study as a whole, the methodological framework that was developed, and the recommendations that were inferred. This volume also contains an annotated bibliography of various topics covered by the study. The second volume demonstrates the use of the framework and describes the substantive findings that resulted when the framework was applied to the following ten case topics:

I National Institute of Education (NIE) Allocation Policy

II Federal Procurement Policy and Knowledge Production and Utilization in Education

III Assessing the Impact of Policies that Control the Availability of Information

IV The Far West Laboratory as a Research and Development Performer

V Minicourses as an Example of Policies Affecting the Dissemination/Utilization of a Successful R&D Product

VI The School Mathematics Study Group (SMSG) Project as an Example of Policies Affecting the Dissemination/Utilization of an R&D Product

VII ESEA Title III Teacher Initiated Innovation Program: An Example of Policies Interfacing Levels of Government

VIII The Governance of Knowledge Production and Utilization in Intermediate Service Agencies: Boards of Cooperative Educational Services in Colorado and New York

IX Policies Affecting the Results of the Federally Sponsored Pilot State Dissemination Program in South Carolina: 1970-73

X An Approach to Monitoring the Role of Government Policies in the Process for Selection and Evaluation of New Instructional Materials

Case Study I

NATIONAL INSTITUTE OF EDUCATION (NIE) ALLOCATION POLICY

by

Patricia Lynch
and
O. W. Markley

CONTENTS

LIST OF ILLUSTRATIONS . . . . I-v

LIST OF TABLES . . . . I-v

I BACKGROUND I-1

II INTRODUCTION I-3

III STEP-BY-STEP INQUIRY I-5

IV SUBSTANTIVE RESULTS I-19

- Creation of the NIE I-19
    - Executive Formulation and Transmittal I-19
    - Initial Congressional Authorization and Appropriation I-20
    - Budget Execution and Control I-20
    - Review and Audit I-22
- Years Subsequent to the Creation of NIE I-22
    - Executive Formulation and Transmittal I-23
    - Congressional Review and Appropriation I-24

V CONCLUSIONS AND RECOMMENDATIONS I-27

VI ADEQUACY OF THE ANALYTICAL APPROACH I-29

ANNEX: TAXONOMY OF POLICIES SELECTED AS MOST SIGNIFICANT IN NIE'S ALLOCATION PROCESS I-31

REFERENCES I-35

ILLUSTRATIONS

I-1 Global Relationships Influencing Fiscal Resource Allocations to/through NIE, Shown as a Closed System . . . I-13

I-2 An "Activity-Centered, Simple" Schematic of NIE Allocation Policymaking I-15

I-3 Activity-Centered Staging Diagram of Executive Formulation and Transmittal Phase of the NIE Allocations Process I-16

TABLES

I-1 Case Study Work Statement I-4

I-2 Initial Purposes of Case Study I-6

I-3 Provisional List of Policies Influencing NIE Allocations I-8

I-4 Allocation-Related Policies Across Time I-17

I-5 NIE Obligations and Budget Estimates, by Program Activity: 1973-1976 . . . . I-21

I-6 Appropriation History I-22

I-7 Significant Items in House and Senate Committee Reports I-25

I BACKGROUND

Because there is no direct constitutional basis for federal involvement in education, the U.S. government for many years took only an inactive role in educational affairs. For example, the U.S. Office of Education (USOE), which was established in 1867, was to "collect statistics and facts showing the condition and progress of education in the several states and territories" (Levien, 1971). The essentially passive posture of the U.S. government with regard to educational knowledge production and utilization (EKPU) remained unchanged until, among other things, the advent of Sputnik jolted Congressional leaders into a reaction of alarm. A spate of legislative initiatives, starting with the Cooperative Research Act of 1954 (PL 83-531, amended by PL 89-10, 89-750, and 90-247), soon made educational R&D a priority area for federal support--rationalized on the basis of national need.*

Background

As a result of such legislation, the federal government has become the single largest source of financial support for education research and development. By 1970, when the federal government underwrote 56% of the nation's total R&D effort (industry providing about 39%), it provided approximately 85% of the financial support for education R&D (National Institute of Education, 1975).* By 1972, it was apparent that the nation's education R&D needs could not reasonably be met by an agency having as many operational responsibilities as the U.S. Office of Education. For this reason, and others, the National Institute of Education was established as the federal agency responsible for educational research and experimentation.

---

*Other legislation that significantly added to the federal government's support of educational R&D during this period includes Titles III and V of the Mental Retardation Facilities and Community Mental Health Centers Construction Act of 1963 (PL 85-926, amended by PL 88-164), the Vocational Education Act (PL 88-210, amended by PL 90-576), Title VI of the National Defense Education Act (PL 85-864), Titles III, IV, and V of the Elementary and Secondary Education Act (ESEA) of 1965 (PL 89-10), and the Education Amendments of 1972 (PL 92-318) and 1974 (PL 93-380).

Federal policies relative to R&D allocations are of major importance to the EKPU system. The importance of federal support appears all the more significant in light of: the perception that education R&D is significantly underfunded relative to the proportion of funds going to research in other sectors, such as agriculture, medicine, and defense (Gideonse, 1970); the expectation set in motion by President Nixon's Message on Educational Reform envisioning a mature National Institute of Education being funded at perhaps a quarter of a billion dollars; and the fact that, contrary to expectations, NIE's annual allocations have decreased rather than increased over time.

The purpose of this case topic is to inquire into the nature of NIE allocations policy since 1972. By "allocations policy" is meant those decisions, guidelines, rules, and so forth that determine the amounts and purposes of funds that NIE receives and in turn obligates. To the extent that other terms such as authorization, appropriation, apportionment, allotment, and allowance share in this definition, they are included in the allocations policy framework.

---

*A list of references is appended to this case study.

II INTRODUCTION

This case study has been organized to help the reader understand how the mapping paradigm we have developed actually works. First, we present the description of NIE allocations policy that resulted from the analysis, and then we turn to a step-by-step application of the paradigm that produced this description. Those who are interested only in the substantive results of this analysis should turn immediately to Section IV (p. 19) of this report.

The analysis starts with the brief work statement shown as Table I-1. Such a statement was prepared for each of the ten case topics of this study, as a way of focusing and translating the requirements of various documents (e.g., the request for proposal, the proposal, and memoranda between SRI and NIE modifying the statement of work), thus providing the research analyst with a clear starting point. In keeping with the recursive nature of the approach, however, it was expected that the procedures specified by these work statements would be somewhat modifed as the work proceeded.

Table I-1

CASE STUDY WORK STATEMENT

(a) Topic I: NIE Allocation Policy
(Agent-Centered, Semi-Complex)

The identification of all significant policies that determine how NIE allocates its funds is a topic that is of expressed interest to NIE and that tests the framework's ability to portray coherently the array of policies that act on a given agent.

Step 1--Identify all published policies that mandate, authorize, or recommend specific areas in which NIE should allocate its resources. Do not include testimony at Congressional hearings or internal memoranda, other than noting that these influences also exist.

Step 2--Categorize the policies, using the taxonomy, breaking out internal NIE structure only to the extent necessary by virtue of content explicitly contained in the policies.

Step 3--On the basis of our analysis and conversations with NIE personnel, recommend further work in this general area (e.g., mapping of policies that influence the activities of a key KPU agency, either federal or state), designing one or more specific projects as seems appropriate.

(b) Outputs

An assessment (strengths and weaknesses) of the analytical framework as used in this topic, and as might be used to structure an information system containing agency-specific policies.

A structured presentation (and supporting documentation) of the policies with which NIE is supposed to comply and that determine its allocation policy.

Any recommended further work that seems appropriate.

III STEP-BY-STEP INQUIRY

In this section, at each step in the analytical approach, we will:

- Repeat the instructions prescribed by the analytical approach.
- Briefly describe the actions that were necessary to complete the step.
- Document the information that resulted.

Step One--Select and write the purpose(s) of the analysis or inquiry for which the analytical framework is to be used. The statement of purpose is crucial as it sets up the heuristic decision rules for using the framework; it must be refined, however, as subsequent steps are taken.

Initially, the purpose of this case study was as indicated in Table I-1--the portrayal of policies that mandate, authorize, or recommend specific areas to which NIE should allocate its resources. As the various steps specified by the analytical approach were tested, however, it was discovered that in general two types of purposes needed to be specified and, for this particular study, three types were needed. These were: (1) substantive--the type of knowledge to be produced by the analysis; (2) intended utility--the type of application that would use the knowledge specified in (1); and (3) evaluate/test (for our study only)--the way in which the case write-up was to be used for purposes of testing the analytical approach.

The purposes set forth for this case study are shown in Table I-2.

Step Two--Tentatively identify the focus of analysis, e.g., a given agent, policy, activity, resource, problem, or issue (the target of the first step above) and the field of analysis, e,g., the set of agents, activities, and policies that will be considered as the context within which analysis will be done.

Table I-2

INITIAL PURPOSES OF CASE STUDY

Substantive results to be produced	To identify those policies that most significantly influence the amount and purpose of NIE allocations and, to the extent deemed appropriate, to show how these policies interact.
Intended utility of this kind of analysis	To provide various stakeholders in the EKPU system a better understanding of how the allocations system works, what its impacts on KPU are, and how it might be constructively influenced.
Evaluation and test of the analytic framework	To illustrate/test how the approach can be used to portray global policies (each of which contains detailed information) acting on and through a federal agency having a central responsibility for supporting EKPU.

The initial focus of this analysis was taken to be NIE as an agency that sets, enforces, and complies with various allocations policies; that is, the emphasis was on the categories and the amounts of funds disbursed to and by NIE in various fiscal years. The initial field of analysis was taken to be all elements having as a central function the setting of, enforcing of, and complying with policies that influence NIE allocations. This field was initially thought to include principally the relevant Congressional committees, the Office of Management and Budget (OMB), the Office of the Secretary of HEW, the National Council on Educational Research (NCER), and the Director and internal staff of NIE.

> Step Three--Identify the elements, i.e., the agents, policies, resources, and activities, making up the focus of analysis; relate them to other elements in the field to establish tentative relationships between and among them, e.g., (1) the agents responsible for activities through policy setting, enforcing, and complying and (2) the sequencing of activities in time.

It is difficult to distinguish clearly between the elements making up the field and the focus of analysis because in this case study the main topic--allocations--is the end result of various activities. However, it is not necessary to do so. The purpose of this step is the identification of all the elements needing to be considered. Tentatively giving higher priority to elements in the focus, lower priority to those in the field, and little priority to those outside the field is but a way to expedite this process.

In searching out the elements (agents, policies, resources, and activities) making up the focus of analysis, we looked first at policies. It soon became apparent that the "agent-centered" orientation originally assigned to the study was inappropriate. An agency-centered approach would lead to a focusing on the elements that influence NIE as a policy-making agency relative to allocations. At that time, however, the specific focus of this case study was seen as those elements that influence the allocations themselves. The difference may seem a small one, but it had significance when ordering a variety of elements into some kind of analytical framework.

Table I-3 typifies the listing of elements (in this instance, policies) that were collected at this stage. Based on this step, we then identified what appeared to be the single most significant elements in the allocations process.

Two policies appear most significant. The first is the law (PL 92-318) mandating that NIE be established, and authorizing it to receive up to $550 million during the first three years of operation. The Congress intended that the essential purposes of the Institute should be:

- To help solve or to alleviate the problems of, and promote the reform and renewal of, American education.
- To advance the practice of education as an art, a science, and a profession.

Table I-3

PROVISIONAL LIST OF POLICIES INFLUENCING NIE ALLOCATIONS

Reference Citation	Summary of Policy
PL 92-318 Section 405 June 23, 1972	Authorization: Provided $550 million for period beginning July 1, 1972, and ending June 30, 1975, to carry out the functions of the Institute. Intent of Congress: To provide every person an equal opportunity to receive an education of quality, regardless of race and so on, by providing leadership in the conduct and support of scientific inquiry into the educational process. Substantive missions (Congress): To help solve the problems of, and achieve the objectives of, American education; advance the practice of education as an art, a science, and a profession; strengthen the scientific and technological foundations of education; and build an effective R&D system. NCER: Established NCER to help carry out policies of intent and to establish general policies for, and review conduct of, NIE. To carry out objectives set by Congress, the Director OF NIE is authorized to: conduct educational research; collect and disseminate educational research; train individuals in educational research; assist and foster research collection, dissemination, or training through grants or technical assistance, contracts with institutions, and the like; promote the coordination of research within the federal government; and provide or construct facilities that may be required to accomplish such purposes. Expenditures: Not less than 90% of the funds appropriated for any fiscal year must be expended through outside grants and contracts. Director of NIE: Authorized to make, promulgate, issue, rescind, and amend rules and regulations governing the manner of operation of the Institute. Projects funded by several federal agencies: NIE may act for all in administering the funds advanced for a single project by more than one federal agency.
FY 1977 NIE planning guidance for FY 1977 plans (NIE internal memorandum)	Planning policies: Carry out dissemination responsibilities; maintain joint support with state and federal agencies; ensure that state and local education agencies receive a substantial share of Institute funds; address the needs identified by Congress, educators, researchers, and state and local policymakers; and coordinate activities with other federal agencies.
NCER Resolution No. 071073-1 July 1973	Resolution on inseparability of Council's operational and advisory functions.
NCER Resolution No. 071073-2 July 10, 1973	Resolution on authority of the Director with respect to supporting authorities from July to October of 1973. Allocate funds for unsolicited proposals and conduct exploratory studies.

Table I-3 (Continued)

Reference Citation	Summary of Policy
NCER Resolution No. 080673-3 August 6, 1973	Resolution on Research Grants Program: Recommended allocations of 10% to 15% of Institute resources for this program.
NCER Resolution No. 091773-4 September 1973	Resolution on Allocation of Resources: No individual grant or contract for new initiatives with an annual cost over $500,000 or a lifetime cost over $2 million will be approved without referral to the Council for consideration of the policy questions that any such grants or contract might raise; there will be continuation of transferred programs from other agencies; 3% to 5% of the allocations will be available for unsolicited proposals; exploratory studies will be conducted.
NCER Resolution No. 091773-5 September 1973	Approved continuation of the Education Voucher program after the Secretary of HEW assigned responsibility of the Voucher Program to NIE.
NCEF Resolution No. 110573-6 November 15, 1973	Suspended resolutions on the Research Grants Program, Allocation of Resources, and Education Voucher Program because of the current funding status of NIE.
NCER Resolution No. 120373-7 December 1973	Resolution on setting priorities for educational R&D: Decided that NIE should move into new areas and not expend the available 1974 funds for activities transferred to NIE from USOE or the Office of Economic Opportunity (OEO). Therefore, NIE should defer the obligation of as much of the funding commitments as possible, where such would not entail undue hardship for performers and would not harm the research objectives or potential utility of the activities concerned; this would enable NIE to initiate work on new priorities. Wanted the commitment level to be reduced from $75 million to about $60 million. Reactivated resolution No. 091773-5 to continue the Education Voucher concept.
NCER Resolution No. 013074-8 January 30, 1974	Policy of NCER to hold open "public meetings" to develop better understanding of NIE policies and activities. Enhance public awareness of NIE activities. NIE staff members to solicit public opinion as part of the normal program planning process.
Section 414 of the General Education Provision Act (PL 93-517)	Automatic extension of PL-93-380 through June 30, 1976, of the current authorization in the event that work leading to reauthorization has not been completed. The automatic extension provision would apply to current authorizing legislation, GEPA Part A, Section 405 as amended, which provides for $550 million for the three-year period beginning FY 1973 and ending FY 1975. Current authorization (FY 1975) is $75 million.
NCER Resolution No. 013/749 January 30, 1974 (NIE internal document)	Member of the NCER will participate in development of NIE's overall objectives and strategies to accomplish the goals represented by the 1975 budget, and the Council will review and approve such objectives and strategies covering each area of Institute activity in forthcoming meetings.

Table I-3 (Concluded)

Reference Citation	Summary of Policy
NCER Resolution No. 011075-14 January 10, 1975 (NIE internal document)	The policy goals used by the Council in reviewing the 1976 budget may also be used by NIE in 1977 plans (i.e., targeting funds to state and local agencies, competitive processes, public involvement, and programs responsive to specific needs of education).
NCER minutes May 1975 (NIE internal document)	Agreed that the Institute should strengthen its emphasis on evaluation of R&D products and the capacity of R&D performing institutions.
NCER minutes October 1974	In discussions aimed at developing a reauthorization strategy, NCER identified various issues to be addressed; that is, that NIE must: identify the groups that have expressed interest in and concern about NIE and those groups to acquaint with NIE; identify the people within the groups who are either especially significant because of positions or especially interested in education and educational R&D; find out from them their views on what NIE should be doing, how it should be done, and means of making programs useful and understandable to constituencies; and exchange ideas and information to inform and assist the development of legislation and programs.

- To strengthen the scientific and technological foundations of education.
- To build an effective eduational research and development system.

The second is the law whose enactment each fiscal year sets the specific level of funds that NIE shall receive.

After looking at policies, we turned to the relevant activities, resources, and agents. The primary activity is the budget process, which takes place under the new Congressional Budget Act (PL 93-344) in four interrelated phases: executive formulation and transmittal, Congressional authorization and appropriation, budget execution control, and review and audit. The primary resource is the funds that are appropriated by the Congress, apportioned by OMB, and allotted to specific activity areas within NIE. The most significant agents for this analysis are the Congress, which is responsible for setting the overall allocation levels within which NIE must work, and NCER (setup by Congress as a primary governing body for NIE), which is responsible for setting the specific priorities of the NIE budget and for approving all major policy decisions made by NIE officials.

> Step Four--After making this "first cut" at the significant elements, construct configurations that describe the system and how it works. Try alternative levels of scope using hierarchically-nested fields and foci of analysis, or multiple foci within one field of analysis.
>
> Test the adequacy of these configurations against: the purchase(s) of analysis (return to Step One and clarify the purpose if necessary); the empirical evidence (using KPU literature, legal and policy archives, interviews, and so forth); and the analyst's tentative image of the system (part of which is the underlying theory or model with which the analyst thinks).
>
> Collect additional information as necessary, refining Steps Three and Four; draw desired conclusions.

Before describing the results of this stage, it may be helpful to state some important methodological considerations. Unless the analyst knows the system under study rather well and knows in addition the precise fashion in which he or she wishes to portray this system, he cannot judge how much detail to include in his portrayal of the various configurations of elements making up the (sub)system under study. Thus, he must try levels of detail that are both greater and less than the one initially envisioned. If unfamiliar with the general topic being investigated, the analyst might start by portraying the elements in ways that are simple/global, and then gradually work into increasing levels of complexity/detail. Having tried varying levels of complexity and abstraction, he should go back to the original purpose and intended scope of the analysis, and refine or modify details as needed to make the inquiry more useful.

Although we tried several representations of the significant elements in NIE allocations policymaking, it proved impossible to illustrate adequately the full range of these explorations. The primary difficulty is that when a complex and abstract set of ideas does not "work," such ideas are difficult to express coherently without describing as well the process through which they were developed--which cannot be done economically in a report of this type. Therefore, we shall not describe all configurations tried, but will simply illustrate with a few examples.

Figure I-1 portrays the societal context in which NIE allocations take place and shows the principal agents at a high level of abstraction, using a flowchart that helps one to intuit the dynamic interrelationships among system elements. (A similar portrayal was attempted at lower levels of abstraction--e.g., showing the appropriations process in the legislative branch and the budget formulation process in the executive branch--but it quickly became more detailed than was appropriate for this task. Hence,

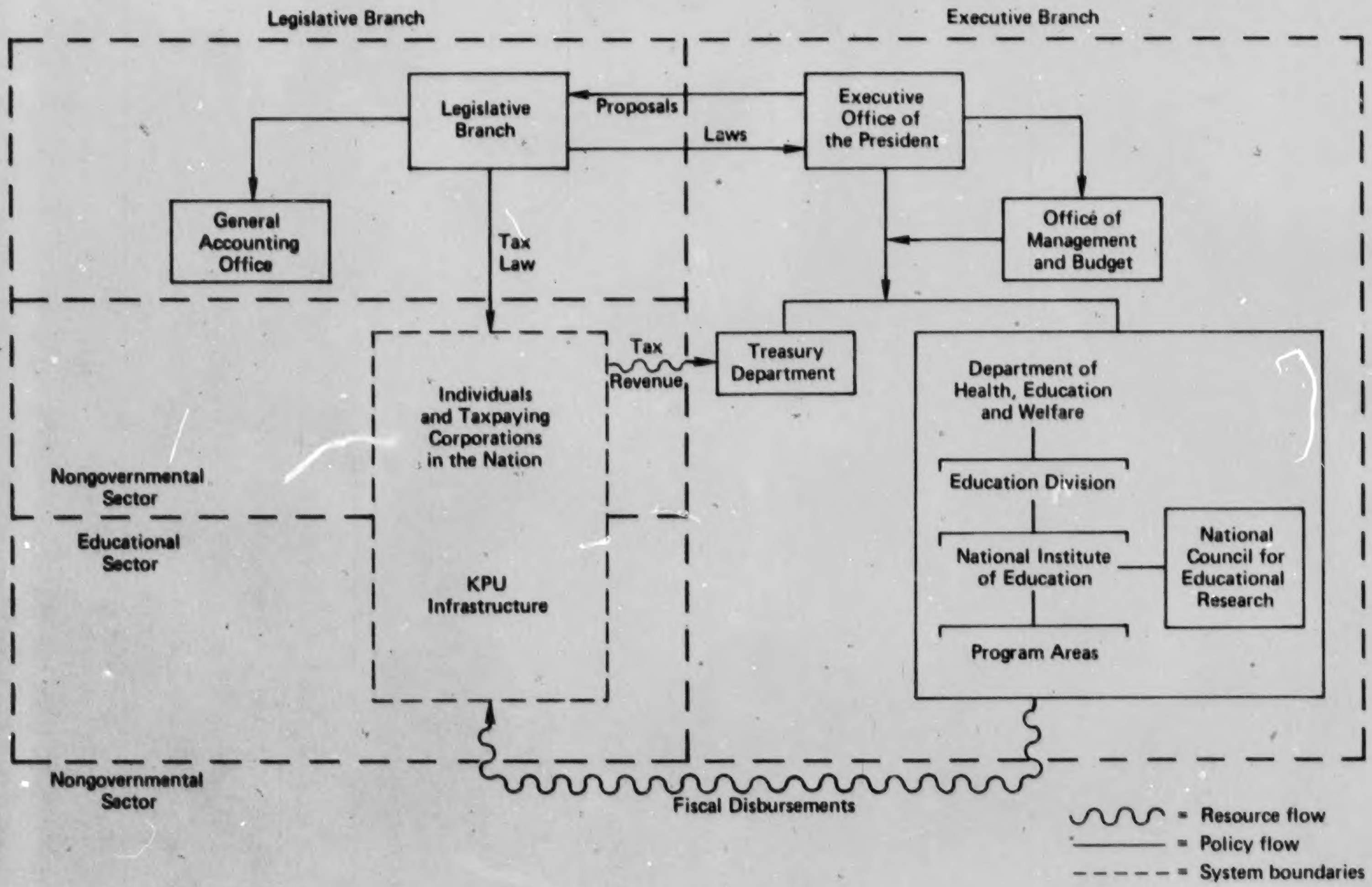

Legislative Branch
Executive Branch
Legislative Branch
Proposals
Laws
Executive Office of the President
General Accounting Office
Tax Law
Office of Management and Budget
Tax Revenue
Treasury Department
Individuals and Taxpaying Corporations in the Nation
Department of Health, Education and Welfare
Education Division
Nongovernmental Sector
Educational Sector
National Institute of Education
National Council for Educational Research
KPU Infrastructure
Program Areas
Nongovernmental Sector
Fiscal Disbursements
= Resource flow
= Policy flow
= System boundaries

FIGURE I-1 GLOBAL RELATIONSHIPS INFLUENCING FISCAL RESOURCE ALLOCATIONS TO/THROUGH NIE, SHOWN AS A CLOSED SYSTEM

we decided not to alter the originally assigned--"simple"--scope of analysis of this topic.)

The configuring of agents, policies, and other system elements in NIE allocations followed along lines portrayed by Figures I-2 and I-3, so that all relevent policies could be identified. Various ways of arranging allocations policies were then prepared (see, for example, Table I-4), both to get a dynamic sense of the changing allocation policies across time, and as an experiment to see if similar tables could usefully be made at differing levels of scope.

Having sufficiently covered the available literature, and having interviewed various persons knowledgeable about NIE's history and its allocations, we decided that to do more than use the analytical framework to document the most significant policies influencing NIE allocations would be imprudent. This decision was made for three reasons. First, although the source policies governing all four major stages in the budgeting process could be identified, it was not feasible to document specific activities through which the purposes of each of these stages are fulfilled. The recency of NIE as an institution and its early chaotic fiscal environment have prevented a well-documented budgeting system from being implemented until the present budgeting cycle, and the details of these procedures are not yet ready for external documentation. Second, the Congressional Budget and Impoundment Control Act of 1974 (PL 93-344) has too recently been enacted for full translation into operational form at all levels of the federal bureaucracy. Third, both the appropriations hearings and studies such as Sproull, Wiener, and Wolf (1975) indicate that the significant realities shaping NIE allocations during its first few years in operation continue to be more informal than formal.

> Step Five--Complete significant portions of systems maps according to the initial purpose of the study, highlighting interrelationships among elements so that conclusions are clearly drawn and justified as the final response to the data collected in previous steps.

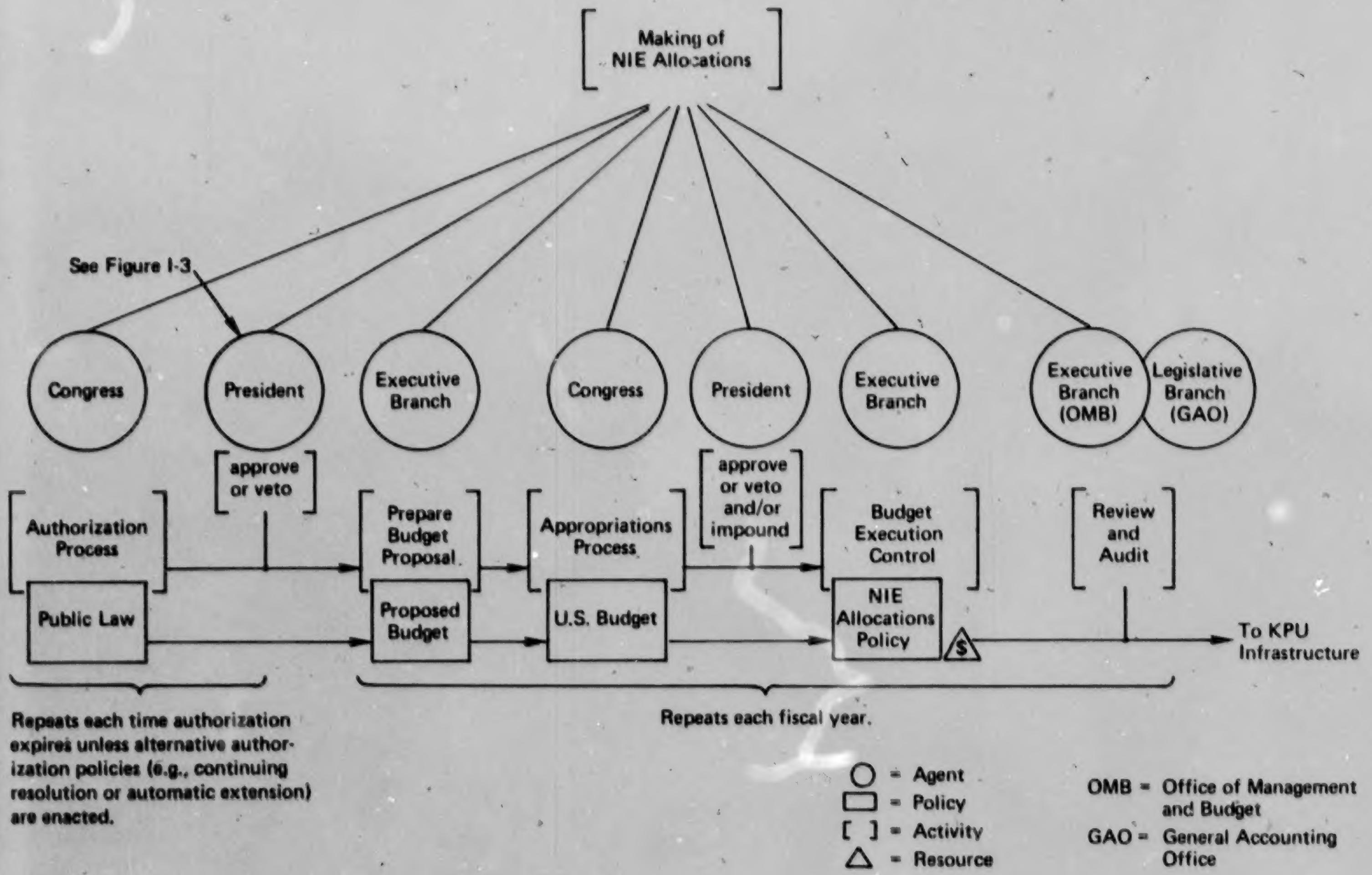
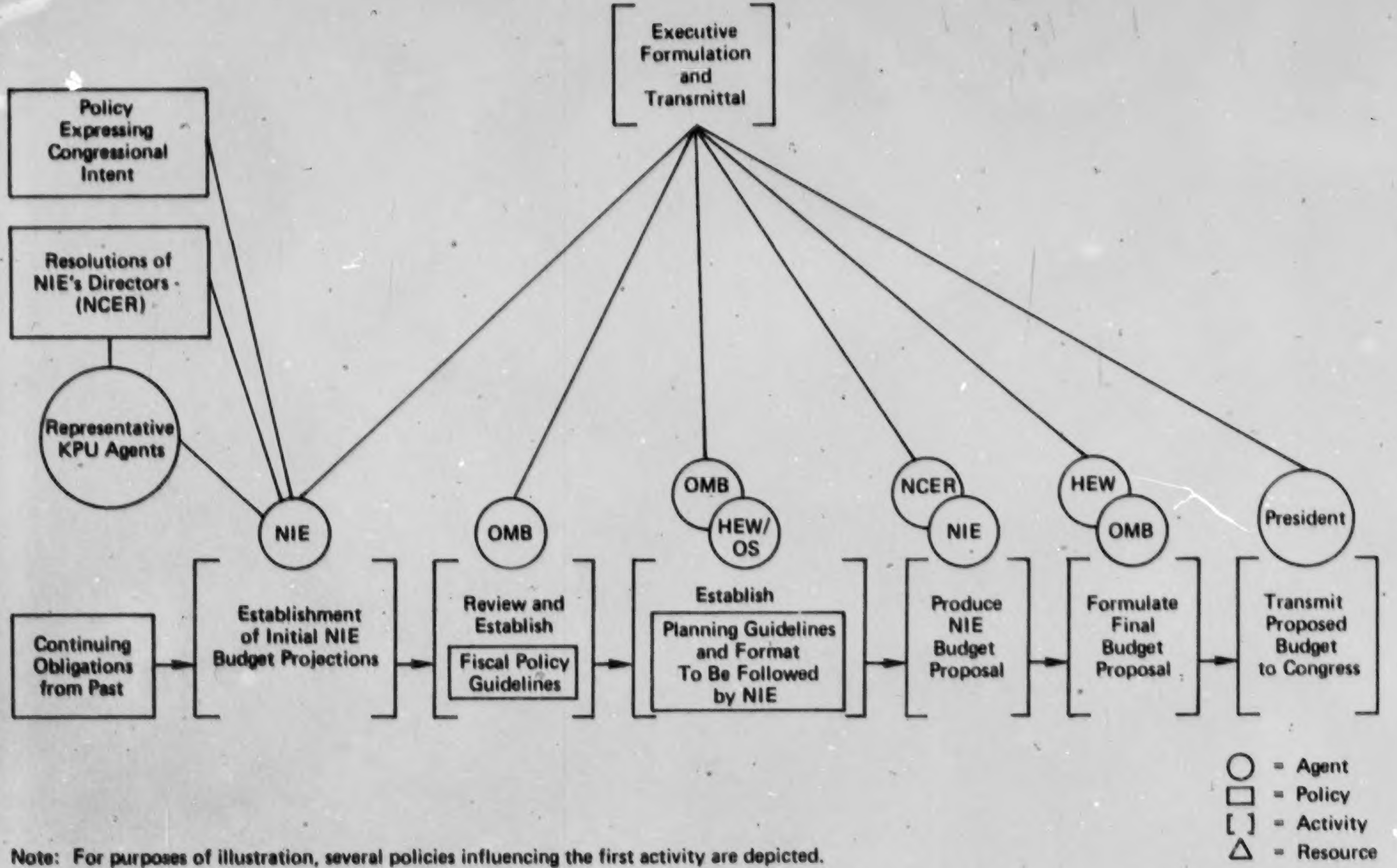

Making of NIE Allocations
See Figure I-3
Congress
President
Executive Branch
Congress
President
Executive Branch
Executive Branch (OMB)
Legislative Branch (GAO)
approve or veto
approve or veto and/or impound
Authorization Process
Prepare Budget Proposal
Appropriations Process
Budget Execution Control
Review and Audit
Public Law
Proposed Budget
U.S. Budget
NIE Allocations Policy
$
To KPU Infrastructure
Repeats each time authorization expires unless alternative authorization policies (e.g., continuing resolution or automatic extension) are enacted.
Repeats each fiscal year.
○ = Agent
▭ = Policy
[ ] = Activity
△ = Resource
OMB = Office of Management and Budget
GAO = General Accounting Office

FIGURE I-2 AN "ACTIVITY-CENTERED, SIMPLE" SCHEMATIC OF NIE ALLOCATION POLICYMAKING


Executive Formulation and Transmittal
Policy Expressing Congressional Intent
Resolutions of NIE's Directors - (NCER)
Representative KPU Agents
NIE
OMB
OMB
HEW/OS
NCER
NIE
HEW
OMB
President
Continuing Obligations from Past
Establishment of Initial NIE Budget Projections
Review and Establish
Fiscal Policy Guidelines
Establish
Planning Guidelines and Format To Be Followed by NIE
Produce NIE Budget Proposal
Formulate Final Budget Proposal
Transmit Proposed Budget to Congress
○ = Agent
□ = Policy
[ ] = Activity
△ = Resource

Note: For purposes of illustration, several policies influencing the first activity are depicted.

FIGURE I-3 ACTIVITY-CENTERED STAGING DIAGRAM OF EXECUTIVE FORMULATION AND TRANSMITTAL PHASE OF THE NIE ALLOCATIONS PROCESS

Table 1-4

ALLOCATION-RELATED POLICIES ACROSS TIME

1954-1971	FY 1973	FY 1974	FY 1975	FY 1976
Background leading to NIE Cooperative research Act, 1954 Mental Retardation Facilities Act, 1963 National Defense Education Act Higher Education Act, 1965 President Nixon's "Message on Educational Reform," March 3, 1970 Rand's report, "NIE Preliminary Plan for the Proposed Institute," (Levien, 1971)	PL 92-318, August 1, 1972 Established NIE and NCER Section 405, PL 92-318 Provided $550 million for fiscal years 1973 through 1975; established policy that not less than 90% of the funds appropriated for any fiscal year will be expended to carry out educational R&D through grants contracts NCER Resolution No. 091773-4 NCER responsibilities include program review and allocation of funding resources NCER July 10, 1973 Established policy to allocate funds for unsolicited proposals and to conduct exploratory studies Appropriation for FY 1973 $142,671,000 NIE's program budget (in millions of dollars) Dissemination $ 6.0 Basic skills 19.3 Finance 38.5 Equity 4.4 Education and work 18.0 Other projects 14.1 Administrative expenses 6.5	Appropriation Requested--$162,197,000 Received--$75,589,000 Inherited programs--$49,012,000 NCER Resolution No. 120373-7 Established new priorities for FY 1974. Supported policy that NIE begin to work in new areas. Deferred previous obligations to make available approximately $15 million for exploratory and planning studies NCER Resolution No. 013174-9 Established policy to support field-initiated studies NCER Resolution No. 080673-3, September 1973 Obligated 10% to 15% of funds for Research Grants Program NCER Resolution No. 013174-9 Established new priority areas for discretionary funds of $16 million $5 million in grants for fundamental research studies directed toward the Council's priority areas $7 million for design and conduct of R&D in the five priority areas $2.2 million for dissemination of research products $1.8 million for policy studies in areas such as teaching effectiveness, education goals, finance, and sex discrimination in education NCER Resolution No. 091773-4 Authorized Director of NIE to allocate resources among the major statutory goals as follows: Strengthening of the knowlege base--10% - 15% Strengthening of the R&D system--10% - 20% Solving problems and advancing the practice of R&D--65% - 80% NIE's program budget (in millions of dollars) Dissemination $ 6.0 Basic skills 12.5 Finance 16.6 Equity 4.5 Other 11.0 Administrative expenses 11.0	Section 414, PL 93-317 Provides for an automatic extension through June 1976 of the current authorization ($75 million) Appropriation Requested--$130,000,000 Received--$70,356,000 Inherited programs USOE and OEO--$68,600,000 Earmarked studies (Congress) Child Study Center--$155,000 Study of School Finance--$32,000 Continuation of Mt. Plains Project and D.C. Schools Project NCER Resolution No. 013074-8 Expect NIE to solicit public opinion as part of normal program planning process NCER Resolution No. 120373-1 New priority areas for the allocation of funds available for new activities in FY 1975 contimue to be the same NIE's program budget (in millions of dollars) Dissemination $ 5.9 Basic skills 12.4 Finance 18.5 Equity 3.0 Education and work 12.7 Other 6.2 Administrative expenses 11.3	→ Appropriation Requested--$80,000,000 Received--$70,000,000 →

Rather than comment here on the choices that had to be made and the difficulties faced at this step, we shall turn to the substantive findings that resulted from this case study: (1) a description of NIE allocations policy in a "resource-centered, simple" mode, and (2) recommendations for further studies or monitoring activities that NIE might wish to support. Finally, we briefly comment on the adequacy of the analytical approach in this study.

IV SUBSTANTIVE RESULTS

Creation of the NIE

Executive Formulation and Transmittal

Although there were a number of antecedent studies, statements, and recommendations suggesting a National Institute or Institutes of Education (Levien, 1971), President Nixon's (1970) "Message on Educational Reform" was the first instance of a formal policy that specified specific details regarding what would become NIE allocations policy. This message characterized the proposed Institute as "a focus for educational research and experimentation in the United States," detailed the need for and the nature of such a national agency, and indicated six topics to which the Institute would be expected to turn its attention. This first listing of priority substantive targets of need included:

- New measures of achievement
- Compensatory education
- The right to read
- Television and learning
- Experimental schools
- Early learning.

In terms of anticipated appropriation of funds to meet these needs, the President proposed that "When fully developed, the Institute would be an important element in the nation's educational system, overseeing the annual expenditure of as much as a quarter of a billion dollars."

Initial Congressional Authorization and Appropriation

The President's message coincided with HEW's submission of proposed legislation to the Congress. After much debate and compromise on how the NIE and the newly created Division of Education should be governed, legislation was passed enabling HEW to create the NIE and authorizing the appropriation of funds to meet its expenses. This legislation, PL 92-318, authorized $550 million for a three-year period beginning FY 1973 and further stipulated that at least 90% of NIE's appropriated funds be disbursed through grants and contracts with qualified public and private agencies and individuals external to the Institute. Regarding specification of areas of needs, this enabling legislation created the National Council on Educational Research as a policy-setting body for the NIE (NCER in turn, therefore, would be a major contributor to NIE allocations policy). The legislation also set the following four priority goals that expressed Congressional intent regarding NIE's mission:

- To help solve or to alleviate the problems of, and promote the reform and renewal of, American education.
- To advance the practice of education as an art, a science, and a profession.
- To strengthen the scientific and technological foundations of education.
- To build an effective educational research and development system.

The initial appropriation to NIE for FY 1973 was $142,671,000.

Budget Execution and Control

Although the initial appropriation to NIE for FY 1973 was given without line-item specification of amounts to be obligated for various target priorities (as is often done in appropriations legislation), a majority of these funds of necessity were allocated to meet obligations for programs that NIE inherited from other agencies--principally the Office of

Education and the Office of Economic Opportunity (see Table I-4). Under the direction of its policymaking body, NCER, NIE translated the four goal statements in its enabling legislation into five primary budget categories, each of which was allotted a major share of NIE's funds:

- Dissemination
- Basic skills
- Finance
- Equity
- Education and work.

The overall allotment to each of these categories and to other categories, such as administrative expenses, is shown on Table I-5.

Table I-5

NIE OBLIGATIONS AND BUDGET ESTIMATES, BY PROGRAM ACTIVITY: 1973-1976
(In Millions of Dollars)

Budget Category	Fiscal Year			
	1973	1974	1975*	1976†
Dissemination	$ 6.0	$ 6.0	$ 5.9	$18.4
Basic skills	19.3	12.5	12.4	13.9
Finance, productivity, and management	38.5	16.6	18.5	18.3
Equity	4.4	4.5	3.0	5.4
Education and work	18.0	14.0	12.7	9.9
Other projects (not classified)	14.1	11.1	6.2	3.4
Administrative expenses and intramural research	6.5	11.0	11.3	10.7
Total	$106.8	$75.7	$70.0	$80.0

*Estimate of obligations in the current fiscal year.
†Budget request for FY 1976.

Source: Table 3.B/T2 (National Institute of Education, 1975)

Review and Audit

We found no significant policies or conclusion-bearing reports emanating from either the Office of Management and Budget or from the General Accounting Office, which together are responsible for conducting review and auditing activities to ensure that agencies such as NIE do indeed allocate and expend their funds in accordance with existing policies.

Several times since NIE's initial funds were appropriated, however, the appropriations subcommittees of both houses of Congress have used their hearings and their conference committee reports to review NIE's conduct and to exert influences on NIE's conduct that are associated with the post-audit process. These influences will be discussed below.

Years Subsequent to the Creation of NIE

Each year, NIE has been significantly influenced by allocations policy decisions that differed significantly from those that were expected by NIE and by the KPU profession. As indicated by Table I-6, the optimistic expectation that NIE's levels of funding would increase over time was not borne out. We shall not discuss this important development other than to

Table I-6

APPROPRIATION HISTORY
(In Thousands of Dollars)

Year	Budget Estimate to Congress	House Allowance	Senate Allowance	Appropriation
1973	$142,671	$142,671	$142,671	$142,671
1974	187,897	143,371	75,700	75,700
1975	134,500	80,000	0	70,000
Supplemental (pay raise)	357	--	--	--
1976	80,000	--	--	--

Source: NIE Budget Justification, p. 11 (FY 1976) illustrate how the making of allocations policy is a significant governing mechanism of NIE. We will also illustrate how the mechanism of appropriation setting has been used both as an instruction of review and audit, and as a way of establishing substantive need categories that the Institute must address--i.e., in the making of substantive policy.

Executive Formulation and Transmittal

NIE requested approximately $162 million, an increase of some $20 million, to conduct its operations during FY 1974. The justification for this request was based on an ordering of substantive need categories different from those explicated by the Congress. Emphasized were:

- The provision of essential skills to all individuals, with special emphasis on reading.
- The improvement of the productivity of resources in the educational system.
- Understanding and improving the relationship of education to work and careers.
- The development of a problem-solving capacity in education systems at the state and local levels.
- Increasing diversity in American education.

In addition, although not listed as a priority, NIE acknowledged a high degree of responsibility to ensure "that the products of educational experimentation are effectively transmitted to teachers, students, local school boards, and governmental officials who are dealing with day-to-day problems of American education" (NIE FY 1974 Budget Justification). Although this budget and its justification were prepared without the benefit of direction from the Council, which was to be responsible for such policy (the Council not having been nominated by the President and confirmed by the Senate in time to help formulate the FY 1974 budget), the Council let the above categories stand when the less ambitious FY 1975 budget was submitted. Neither HEW nor OMB seem to have appreciably restricted NIE's levels of requested budgets.

Congressional Review and Appropriation

In responding to NIE's request for approximately $162 million for FY 1974, a Senate subcommittee stated that NIE appears to have a "total lack of understanding of its purpose," that NIE's long- and short-range goals were "vague and obscure," and that if NIE were to succeed, it must first "determine its proper role within the educational system," (The Senate Select Subcommittee on Labor and Health, Education and Welfare Appropriations, Report p. 80). A House subcommittee responded a bit more sympathetically, noting that NIE's activities "had been hampered by the fact that the NCER had not been established at the time the committee held its hearings on the Institute's budget." On the other hand, this subcommittee reported that "NIE had not fully carried out the intent of Congress to assist state and local education agencies through dissemination of research information and newly developed programs and practices." As shown by Table I-6, the Congress thereupon refused to appropriate any increase and instead decreased NIE's budget. Subsequently, the quality of NIE's relationship with the Subcommittees on Congressional Appropriations (as indicated by formal policies, at least) seems to have changed only to the extent that the Congress became more substantively restrictive in its appropriations policy. For example, Table I-7 specifies various ways through which the Congressional appropriations policy was used to direct NIE's conduct, together with NIE's proposed responses--such as increasing allocations for dissemination as a way to provide assistance to state and local agencies.

A final entry can be made in this brief summary of NIE allocations policy. In response to heavy lobby pressure from the Council for Educational Development and Research (CEDaR), the Congress in its FY 1976

Table I-7

SIGNIFICANT ITEMS IN HOUSE AND SENATE COMMITTEE REPORTS

Item	Activity
	(a) FY 1975 House Report
The Committee stated that "the Institute has not fully carried out the intent of Congress to assist state and local educational agencies through dissemination of research information and newly developed programs and practices."	The budget request for FY 1976 provides for three times the 1975 level or $18,343,000 for dissemination projects. During FY 1975 funds are being provided to assist approximately 30 states develop or improve their dissemination activities. The goal of the program in FY 1976 is to provide teachers, administrators, and policymakers outcomes of educational research and help them adapt development products such as innovative curricula and exemplary local practices to their own use.
	(b) FY 1975 Senate Report
The Committee recommended the Institute take steps necessary to eliminate marginal, less productive education R&D projects and concentrate efforts on more goal-oriented activities. The Committee specified the following as examples of the kind of activities on which the Institute should focus.	
A proposed study of school finance	Funds have been provided in FY 1975 for School Finance Planning activities. In FY 1976 the Institute will work closely with school finance policymakers in states and elsewhere to support analyses and research responding directly to their needs. $32,000 will be provided in FY 1975 and $750,000 in FY 1976.
The more successful educational laboratories and centers	In FY 1975 an estimated $29.8 million will bring most of the ongoing lab and center projects to conclusion. For FY 1976 new funding decisions for the most part, will be made by NIE personnel with the advice of outside experts in response to competitive program announcements. The experience of many of the education laboratories and R&D centers should enable those most capable to compete successfully. A tentative estimate of NIE funding for labs and centers in FY 1976 is $20 million. This estimate is based upon their past capabilities in undertaking research and at providing support services to local education personnel, such as adapting R&D outcomes to local school needs.
The Mountain Plains Project	$5.2 million will be provided in FY 1975 and $2.7 million in FY 1976. The decrease reflects the conclusion of the research and development phase of the residential training program for rural families in the six-state Mt. Plains region.
The D.C. Schools Project	Since the D.C. Schools Project is currently operating on funds awarded during FY 1974, funds will not be necessary for continued support until FY 1976. The budget does request $2.3 million, representing the final year of the three-year project in the Anacostia area of the District of Columbia.
The University of Mid-America	In FY 1976 the University of Mid-America will be expanded from a one-state to a 5 state network. In addition, the proposed budget of $1.6 million, provides up [to] $0.2 million from FY 1975, to expand the number of courses offered from 4 to 8.
The Committee directed that $155,000 be provided to continue operation of the Child Study Center now operating at HEW.	$75,000 has been provided in FY 1975 to continue the Office of Education Child Study Center. The FY 1976 budget provides for NIE to support research in early childhood education in conjunction with the ongoing child study center. Alternatives designed to increase the impact of the research expenditures will also be explored, such as establishing a preschool demonstration site in collaboration with the Smithsonian Institution. $200,000 is planned for FY 1976.
The Committee recommended that an appropriate portion of FY 1973 funds be allotted as final payment to the Western Institute of Technology.	Necessary FY 1973 funds ($506,000) have been provided as final payment for the National Computer Services, Western Institute of Technology Project in Waco, Texas.

Source: NIE Budget Justification (FY 1976) appropriation for education (PL 94-94) allotted NIE $70,000,000 "for carrying out section 405 of the General Education Provisions Act ... of which up to $30,000,000 shall be made available by the Institute to the educational laboratories and research and development centers." Therefore, if NIE management intends to comply with this mandate sent down by the Congress, it will have to allocate some 44% of its already minimal budget of $70,000,000 to a group that accounts for only 12% of the KPU work force.*

---

*This percentage was calculated on the "mean estimate" of 10,000 for the current educational R&D work force in the recent DATABOOK (National Institute of Education, 1975a), and on the sum of 1,152 that we derived from the professional R&D work force in the various laboratories and centers that are listed in Appendix B of the recent "R&D Funding Policies" report (National Institute of Education, 1975b).

V CONCLUSIONS AND RECOMMENDATIONS

Although this analysis was reported at a relatively simplistic level, it nevertheless provides an adequate basis for drawing implications about the governance of knowledge production and utilization in the United States. Three observations are especially worthy of note. First is NIE's repeated pattern of not receiving its requested allocations from the appropriations subcommittees of the Congress. Second is that NIE's initial authorization enabling authorization has not expired, is on an automatic one-year extension, and comes up for reenactment next year. Third is that at least part of NIE's constituency--the laboratories and centers acting through the CEDaR organization--has turned to heavy lobbying to promote its interests. From a systems perspective, these are interesting observations, especially so because NIE is a new organization.

One of the systems principles that seems to occur throughout all hierarchically organized systems, whether they are "mechanical" or "living," is the phenomenon of "hierarchical emergence." This is the phenomenon through which a new coherent system property "emerges" when a series of lower order systems or configurations begins to work in close interaction over time, so that the new higher level configuration or system can have stable properties of its own. An example is the way in which the gears in a clock work together to "tell time." ("Time" had nothing to do with "the configuration of gears" in most scientific disciplines before the invention of clocks, but it emerges as a property under the right conditions.) A more relevant example is the way in which events like the establishment of the NIE create a concept such as KPU. As is true in all living systems, however, the survival probability of a mutant organism or species is small unless the mutant has, by virtue of its mutation, a superior advantage in its life-support transactions with the ecological networks surrounding it. This principle, translated relative to KPU, means that NIE as an institution and KPU as a concept must always have "currency" (legitimacy and value) to the principal stakeholders in the KPU community. Only then can KPU guarantee its survival in the "jungle" through which its allocations policy is formed.

Specifically, this analysis points to NIE's need for strong political support from the community having vested interests in effective KPU in education. Because analysis of political and other nonformal influences lies beyond the scope of this study, we shall merely note several ways in which a monitoring system could assist those who lobby for needed legislation. For this purpose, the following yearly or periodic indicators would be useful in the DATABOOK:

- Time series statistics on the comparative funding of R&D in various disciplines and throughout the federal government that would help to show if NIE/KPU is getting "fair share."
- Cross-tabulations of funding by NIE and by other educational agencies that would show the proportion of support received by various categories of activities (also discussed in Case Study II).
- Listings of formal lobby activities conducted by constituent groups in KPU--both the substantive target of the lobby and the level of priority given to the target.

VI ADEQUACY OF THE ANALYTICAL APPROACH

It is somewhat difficult to assess the adequacy of the analytical approach in this case study because the analyst who worked up the case material left the project before the final results were written.

One tentative conclusion from this case, however, is that the "simple" mode of describing the significant policies, activities, resources, and agents in a given configuration or set of configurations offers little value over other methods of portraying social organization. Furthermore, it appears that, as in journalism, one needs approximately four times the information that one actually sets down in writing if one is to adequately treat the topic at a given level of detail and complexity. Therefore, although we remained consistent with our early decision to pursue a "simple" mode of analysis and description, we necessarily had to consider various "complex" and "interactive" configurations through which NIE allocations policies are made. It was for searching out these more detailed, dynamic, and complex relationships that the analytical approach was found most useful. Specifically, it was helpful in deciding how much information to seek at various stages during the study (whether to make the inquiry more convergent or divergent at each step), where to seek it (whether to stay at the level of codified policy or to seek out internal memoranda), and how to organize the information for analysis (the framework offering several alternatives to try).

Our overall conclusion regarding adequacy, however, is that a "simple" use of the analytical approach provides real assistance during the early stages of inquiry, but much less assistance during the final write-up. We believe that the analytical approach would be valuable both for guiding the gathering of information and for describing the results of a topic like this if it were done at a more detailed and complex level of effort.

Although we did not suggest that NIE sponsor such a study, the approach should be useful as a way to help document and describe all the major stages, activities, and governing policies through which NIE program governance takes place--from routine budgetary planning, through the making and monitoring of awards, to postprogram audit and the use of past results in forward strategy making.

Annex

TAXONOMY OF POLICIES SELECTED AS MOST SIGNIFICANT IN NIE'S ALLOCATION PROCESS

Annex

TAXONOMY OF POLICIES CONSIDERED SIGNIFICANT IN NIE'S ALLOCATION PROCESS

Policy Name	Reference Citation	Policy Type and Generation Process	Source	Explanation of Significance
Education Amendments of 1972, PL 92-318, Section 405	20 U.S.C. 1221e	Statutory Law (Enactment)	Federal (Legislative) (U.S. Congress)	This legislation authorized establishment of NIE, outlined its purposes, and allocated funding. It set up NCER as NIE policy board and stipulated that NIE allocate 90% of its funding to grants and contracts research outside NIE.
NCER Resolutions	Not codified (NIE internal policy	Administrative Law (Regulations)	Federal (Executive) (NCER)	Policy directives under which NIE must develop its allocations priorities.
Congressional Budget and Impoundment Act of 1974, PL 93-344	31 U.S.C. 1301	Statutory Law (Enactment)	Federal (Legislative) (U.S. Congress)	Sets up new fiscal year timetable and provides for procedures with which to regulate the ability of the executive branch to impound funds appropriated by the Congress.
Congressional Appropriations subcommittee Reports	House Report No. 93-1140 (Committee on Appropriations) Senate Report No. 93-1146 (Committee on Appropriations)	Administrative Law (Guidelines)	Federal (Legislative) (U.S. Congress)	Criticizes NIE's conduct and makes specific recommendations regarding substantive allocations to be made by NIE.
Education Division and Related Agencies Appropriation Act, 1976, PL 94-94	20 U.S.C. 1221e	Statutory Law (Enactment)	Federal (Legislative) (U.S. Congress)	Directs NIE to make $30 million of its $70 million FY 1976 appropriation available to the educational laboratories and research and development centers.

REFERENCES

Gideonse, H. D., Educational Research and Development in the United States (Government Printing Office, Washington, D.C., 1970).

Levien, R. E., "National Institute of Education: Preliminary Plan for the Proposed Institute," Rand Corporation, Santa Monica, California (February 1971).

National Institute of Education, "R&D Funding Policies of the National Institute of Education: Review and Recommendations," final report of consultants to the Director and the National Council on Educational Research, HEW, Washington, D.C. (1975).

National Institute of Education, The Status of Educational Research and Development in the United States: 1975 DATABOOK, prepared by William Paisley and associates, Stanford University, Stanford, California (1975a).

Palmer, A. M., New Centers Directory, Gale Research, Detroit, Michigan (1972-1974).

Palmer, A. M., Research Centers Directory, Gale Research, Detroit, Michigan (1972).

Sproull, L., S. Wiener, and D. Wolf, Organizing an Anarchy: Beliefs, Bureaucracy, and Politics in a New Federal Agency, Stanford University School of Education, Stanford, California (revised manuscript, July 1975).

CASE STUDY II

FEDERAL PROCUREMENT POLICY AND KNOWLEDGE PRODUCTION AND UTILIZATION IN EDUCATION

by

Lee Sproull
and
O. W. Markley

CONTENTS

LIST OF ILLUSTRATIONS . . . . II-v

LIST OF TABLES . . . . II-v

I INTRODUCTION II-1

II COMPONENTS OF NIE R&D PROCUREMENT SYSTEM II-7

Sources That Establish NIE Procurement Regulations II-7
Policies II-8
Agents II-10
Procurables II-10
Activities II-10

III DECISIONS AND ACTIVITIES IN THE PROCUREMENT OF EDUCATION R&D II-13

Internal or External Performer II-13
Grant or Contract II-16
  Procurement via the Contract Instrument II-17
  Procurement via the Grant Instrument II-25

IV POLICY IMPLICATIONS FOR EKPU SYSTEM USING ANALYTIC FRAMEWORK II-27

Structural Interaction II-27
Review and Sign-Off Interaction with Different Variables II-29
NIE Interaction with the "Field" II-31
Areas of Discretion II-33

ANNEX: TAXONOMY OF POLICIES CONSIDERED SIGNIFICANT IN THE STUDY OF FEDERAL COMPETITIVE PROCUREMENT POLICIES II-37

REFERENCES II-41

ILLUSTRATIONS

II-1 Representation of the General Procurement Process II-4

II-2 Government Agency Operation for R&D Procurement and Administration II-5

II-3 Major Sources of NIE Procurement Policy II-9

II-4 NIE Project Officer R&D Procurement Decisions II-14

II-5 NIE Operation for R&D Procurement and Administration II-28

II-6 Review and Approval for Various Procurement Activities II-30

II-7 Interaction Between NIE and "the Field" During the Procurement Process II-32

II-8 Areas of Discretion in R&D Procurement for NIE Project Officer II-34

TABLES

II-1 Federal Outlays for Personnel Training and Research in Education II-2

II-2 Selected Major Policies and Regulations Governing NIE Procurement II-11

II-3 Categories of Procurables and Regulations Governing Their Procurement II-12

I INTRODUCTION

Several federal agencies support education R&D, including the Department of Defense and the National Science Foundation (see Table II-1). However, one, the National Institute of Education (NIE), has been given preeminent responsibility for the support of R&D related to education [see Public Law (PL) 92-318, Section 405]. The purpose of this analysis is to delineate the coverage and possible impact of NIE's formal R&D procurement policy on the EKPU system. The focus of analysis is the NIE project officer: that is, the analysis attempts to identify and describe the decisions and activities undertaken by the project officer in procuring education R&D. The field of analysis is the regulations and mandated procedures that govern the activities of the project officer (and other actors). The analysis is restricted to the formal system of legally and bureaucratically binding directives.[*]

Procurement is a substantial activity for the U.S. government. In the 1972 fiscal year, the U.S. government spent $57.5 billion on the procurement of goods and services and an additional $39.1 billion on grants--a total of 40% of the federal budget. Regulating these procurements is a complex system of over 4000 provisions of the U.S. Code (Commission on Government Procurement, 1972, Vol. I, p. 10);[†] implementing and enforcing these provisions is a work force of over 80,000 federal employees (Commission on Government Procurement, 1972, Vol. I, p. 2).

---

[*] We realize that informal influences may affect R&D procurement outcomes as much as the formal regulations do, but without a map of the formal regulations, it would be difficult to identify the points at which informal influences might be of most importance.

[†] A list of references is attached to this case study.

Table II-1

FEDERAL OUTLAYS FOR PERSONNEL TRAINING AND RESEARCH IN EDUCATION

Program	Outlays (millions)		
	1974 actual	1975 estimate	1976 estimate
Education personnel training:			
Educational development	115	80	28
Occupational, adult and vocational	14	32	52
Emergency school assistance	16	14	12
Education for the handicapped	32	39	33
College teacher fellowships (OE)	26	8	4
Office of Child Development	22	22	20
National Science Foundation	13	17	14
Other	7	15	24
Subtotal, education personnel training	245	227	187
Educational research:			
Educational development	123	68	11
Elementary and Secondary Education Act	22	83	98
Education for the handicapped	35	31	32
Occupational, vocational and adult education	50	48	102
National Institute of Education	97	82	84
National Foundation on the Arts and Humanities	20	34	36
National Science Foundation	31	37	41
Other	21	43	50
Subtotal, educational research	399	426	454
Total	644	653	641

The Office of Education funds most of the educational training and the National Institute of Education funds a significant part of educational research through a wide range of programs. The Office of Education will provide 70% of the money for personnel training in 1976; the National Institute of Education will provide 20% of the funds for research in 1976.

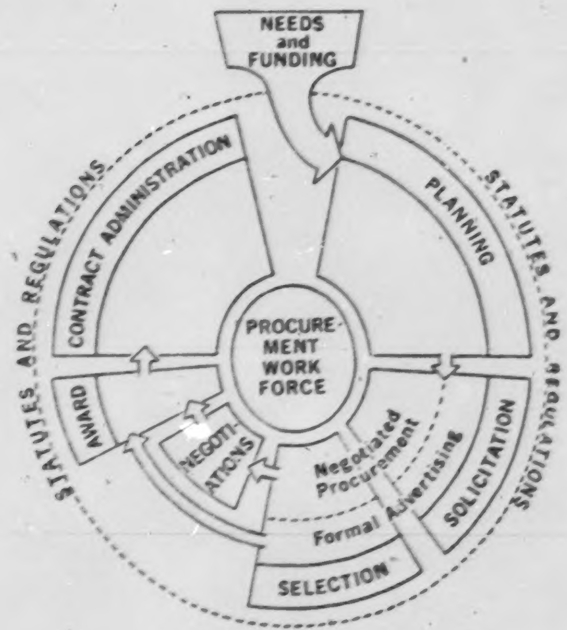
Source: Office of Management and Budget, Special Analyses: Budget of the United States Government, Fiscal Year 1976, p. 148 (USGPO, Washington, D.C., 1975)

As a result of its position within the federal government, NIE must conform to a host of regulations and procedures originally developed for other agencies or for the procurement of "products" other than R&D.

All procurement statutes and regulations assume a common set of steps and activities in the procurement process. For convenience, we will organize our discussion on the same set of steps and activities. (We will later point out, however, that these assumptions are not always appropriate for the procurement of R&D.)

The procurement process begins with the identification of needs and the appropriation of funds to meet these needs (see Case Study I). The agency then plans how the funds should be spent, solicits offers from individuals or organizations to carry out the plans, may or may not negotiate with a subset of offerors, awards the funds, and oversees their expenditure. The process ends with the delivery of the needed goods or services. The overall goal of the process is to procure high-quality needed goods and services at the lowest feasible cost through free and open competition. (As with all complex social systems, the procurement process also serves other goals. For example, it serves the economic goal of stimulating certain industries and labor markets; it also serves certain social goals such as the prohibition of employment discrimination on the basis of race or sex.) Figure II-1 is a representation of the general procurement process.

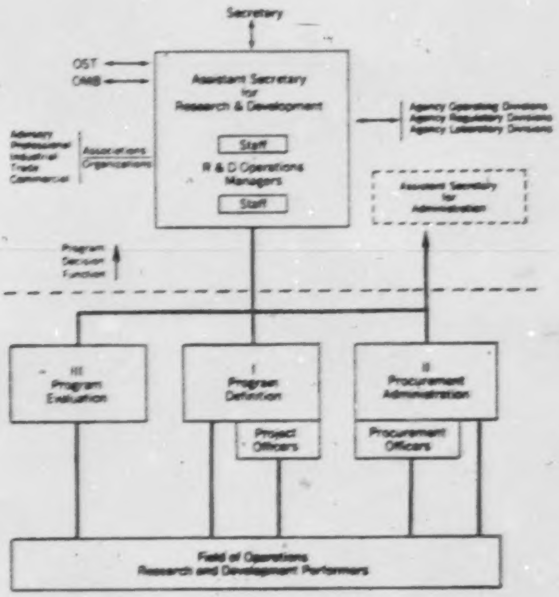
The principle of free and open competition governs almost all of the procurement regulations. The basic procurement mechanism is that of formal advertising in which goods or services specifications are published, sealed bids are tendered, and the individual or firm with the lowest bid is awarded the contract. Formal advertising is almost never appropriate for procuring R&D; the inability to prespecify detailed results and the desire for creativity and innovation preclude its use. Exceptions to the formal advertising procedure are permitted (i.e., it is possible to negotiate a contract), but only after the agency head issues a determination and finding that formal advertising is inappropriate (Commission on Federal Procurement, Vol. II, p. 25). Even within the procedures for awarding negotiated contracts, the principle of competition is carefully fostered under the assumption that competition will


NEEDS and FUNDING
CONTRACT ADMINISTRATION
PLANNING
STATUTES AND REGULATIONS
STATUTES AND REGULATIONS
PROCUREMENT WORK FORCE
AWARD
NEGOTIATIONS
Negotiated Procurement
Formal Advertising
SOLICITATION
SELECTION

Source: Commission on Government Procurement, *Report of the Commission on Government Procurement*, Vol. I: *General Procurement Considerations*, p.2 (USGPO, Washington, D.C., 1972)

FIGURE II-1 REPRESENTATION OF THE GENERAL PROCUREMENT PROCESS

ensure the best possible product for the government. Although organization structure may vary from agency to agency, most R&D procurement activities entail both a project officer and a contracting officer. The project officer usually initiates the activities (defining a need, describing goods or services that could meet that need, and so forth) that might culminate in R&D procurement. He or she is particularly concerned with the technical quality of that which is procured. The contracting officer is the only government agent legally empowered to make financial commitments on behalf of the federal government. He or she is responsible for ensuring that any procurement is both legal and advantageous for the government. Although the project officer and contracting officer (noted as procurement officer on Figure II-2) are often located in separate parts of the organization structure, the successful completion of an R&D procurement action requires that they work together closely.


Secretary
OST
OMB
Assistant Secretary for Research & Development
Staff
R & D Operations Managers
Staff
Advisory
Professional
Industrial
Trade
Commercial
Associations
Organizations
Agency Operating Divisions
Agency Regulatory Divisions
Agency Laboratory Divisions
Assistant Secretary for Administration
Program Decision Function
III Program Evaluation
I Program Definition
II Procurement Administration
Project Officers
Procurement Officers
Field of Operations
Research and Development Performers

Source: Commission on Government Procurement, *Report of the Commission on Government Procurement;* Vol. II, p. 11 (USGPO, Washington, D.C., 1972)

FIGURE II-2 GOVERNMENT AGENCY OPERATION FOR R & D PROCUREMENT AND ADMINISTRATION

II COMPONENTS OF NIE R&D PROCUREMENT SYSTEM

Sources That Establish NIE Procurement Regulations

The three major sources that establish formal procurement policy for NIE are Congress, the courts, and the executive branch of government. Congress can pass both general procurement legislation to which NIE must adhere (for example, the Federal Property and Administrative Services Act of 1949) and legislation specific to NIE (for example, the provision in NIE's authorizing legislation that at least 90% of its R&D funds be spent externally or the provision of the NIE 1975 appropriations bill, which stipulated that no recipient of NIE funds could receive an annual salary larger than that of the U.S. Commissioner of Education). In addition to passing legislation, Congress shapes NIE procurement policy through its review agency--the General Accounting Office--which certifies the legality of contractual disbursements and audits specific procurement activities. The courts affect NIE procurement policy through their judicial review of individual statutes and contract disputes. The executive branch affects NIE procurement policy through Executive Orders, Office of Management and Budget Directives, the General Services Administration Federal Procurement Regulations, and HEW directives and policies.

As a result of NIE's authorizing legislation, NIE procurement policy may be shaped by yet another actor. Public Law 92-318 stipulated that the National Council on Education Research (NCER), a fifteen-member Council appointed by the President, would have "policymaking authority" for NIE. Thus far, NCER influence with respect to R&D procurement has been confined to setting level-of-effort directives for spending and approving specific programs. Theoretically, however, it could intervene in the procurement process itself, mandating procedures at variance with those promulgated by HEW for its member agencies. (See Figure II-3 for major sources of NIE procurement policy.)

Policies

NIE's procurement activities are generally governed by Title III of the Federal Property and Administrative Services Act of 1949 [41 U.S.C. 251-260 (1970)]. This act gives either the President or the Administrator of the General Services Administration (GSA) authority to prescribe procurement regulations or policies for civilian agencies. The Federal Procurement Regulations, issued by GSA, stipulate the major regulations governing procurement. Procurement by contract is governed by Chapters 1 and 3 of Title 41 of the Code of Federal Regulations. The award and administration of educational research grants by NIE is governed by Chapter 14 of Title 45 of the Code of Federal Regulations. NIE is also subject to collateral regulations governing, for example, application of Title VI of the Civil Rights Act of 1964 (PL 88-352), and Title IX of the Educational Amendments of 1972 (PL 92-318). Congress also enacts legislation specific to NIE that may affect its procurement policies. For example, each year NIE's appropriations act has stipulated that all appropriated funds be expended by the end of the fiscal year. This provision necessarily imposes certain deadlines upon the procurement process.

Some of the major regulations governing federal procurement have been explained or interpreted for NIE professional staff (including project officers) in one section of the NIE Directives System (NIE Guides 16.0.01 to 16.0.13). These directives, issued by the NIE Office of Administration, establish procedures for implementing various provisions of procurement policy and guide the NIE project officer through some of the decision points and activities associated with procurement. Because

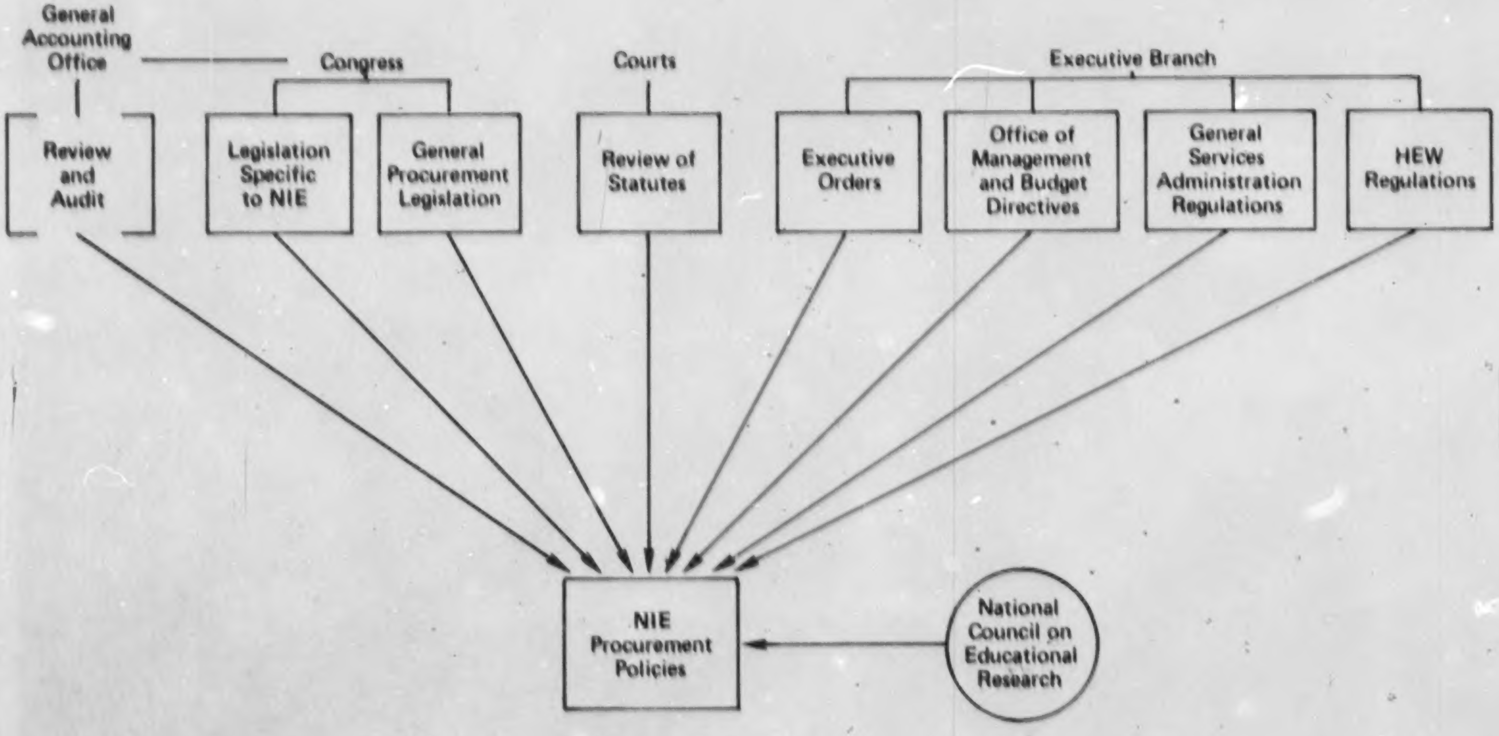

General Accounting Office
Congress
Courts
Executive Branch
Review and Audit
Legislation Specific to NIE
General Procurement Legislation
Review of Statutes
Executive Orders
Office of Management and Budget Directives
General Services Administration Regulations
HEW Regulations
NIE Procurement Policies
National Council on Educational Research

FIGURE II-3   MAJOR SOURCES OF NIE PROCUREMENT POLICY

the NIE directives, rather than the legal documents embodying the procurement regulations, provide the day-to-day guidance for the NIE project officer, we will often cite them as the basis for policy guidance. It should be understood, however, that the directives are based upon the statutes and regulations described above. (See Table II-2 for selected major policies and regulations governing NIE procurement.)

Agents

As stated above, the primary focus of this analysis is the NIE project officer. Because the contracting officer has legal responsibility for all procurement actions, he or she is also a major agent in this analysis. Agents in the field of analysis are NIE review authorities and NIE sign-off authorities. Because we take the policies as given, we do not include any of the policy-setting agents, such as Congress, in the analysis.

Procurables

There are a number of goods and services, which might fall under the general category of education R&D, that NIE might wish to process. Not all of them are subject to the Federal Procurement Regulations (see Table II-3). The three major kinds of goods and services that are governed by the Code of Federal Regulations are expert nonpersonal services (i.e., consultant services), task completions, and level of effort work. Although we discuss all three classes of procurables, the major focus is on task completions.

Activities

Activities in the procurement process are described in Section III. There are three basic activities within the procurement process: (1) decisions that are guided by policy statements (for example, it may be

Table II-2

SELECTED MAJOR POLICIES AND REGULATIONS GOVERNING NIE PROCUREMENT

Procuring R&D by Obliging Funds

Any portion of an NIE appropriation that is not obligated by the end of the current fiscal year must be returned to the Treasury (Annual(Labor/HEW Appropriations Bills)

Obligating Funds for R&D

"... only a Contracting Officer can obligate the government to the expenditure of funds in connection with the award of a contract or grant," p. 2 [NIE Guide 16.0.01--Chs. 1 and 3, Title 41, Code of Federal Regulations (CFR)]

Allocating Funds to Extramural or Intramural Research

NIE must allocate at least 90% of its R&D funds to extramural work (Public Law 92-318, Section 405)

Publicizing Proposed Procurements

"Federal Procurement Regulations require that proposed procurements of $5000 or more, with few exceptions, be publicized in the Commerce Business Daily," p. 1 (NIE Guide 16.0.11--Title 41, CFR)

Procuring R&D by Contract

"It is the policy of the Institute that the contract shall be the mandatory instrument ...." p. 2 (with certain exceptions) (NIE Guide 16.0.07, p. 2--Chs. 1 and 3, Title 41, CFR)

Procuring by Competition

"It is the policy of the Institute that competition be obtained to the maximum extent practicable consistent with the nature and scope of any proposed procurement," p. 1 (NIE Guide 16.0.02--Ch. 3, Title 41, CFR)

Soliciting R&D Proposals

"It is the policy of the Institute that only those sources that have been evaluated and considered technically qualified to perform research and development of the type required by the statement of work in the solicitation shall be solicited," p. 2 (for procurement by contract) (NIE Guide 16.0.11)

Limiting Solicitation for Procuring R&D by Contract

"The desirable element of competition must be maintained b/ the extremes of solicitation of all interested sources when an excessive number of potential sources have been identified, or noncompetitive solicitation, should be avoided unless clearly warranted," p. 3. This pertains to solicitation for a contract procurement (NIE Guide 16.0.11--Chs. 1 and 3, Title 41, CFR)

Soliciting R&D Proposals

"It is the policy of the Institute to provide announcements of grant assistance to all interested individuals and organizations and to formally publish notice of these announcements in the Federal Register," p. 3 (NIE Guide 16.0.11--Title 45, Chapter 14, CFR)

Requirements for RFP

"The Contracting Officer is responsible for assuring that the RFP is complete .... It shall be in writing; shall specify a date for the submission of proposals...must include terms, conditions and provisions that will constitute the final definitive contract, and specify all the information that prospective contractors are required to furnish to permit a meaningful and equitable evaluation of their offerors. Criteria for evaluating prospective contractor proposals will be stated along with their relative weights ...." p. 2 (NIE Guide 16.0.10--Ch. 3, Title 41, CFR)

Debriefing Unsuccessful Offerors

"The Institute's policy is to debrief all unsuccessful offerors who so request as to the reasons their proposals were not accepted," p. 4 (NIE Guide 16.0.12)

Contract Close-Out

"Final review and acceptance of the services or products provided under contract must be accomplished by the project officer .... The contract close-out is the responsibility of the Contracting Officer," p. 5 (NIE Guide 16.0.13, Title 41, CFR)

Table II-3

CATEGORIES OF PROCURABLES AND REGULATIONS GOVERNING THEIR PROCUREMENT

Procurable	Applicable Regulations
Materials and supplies	Formal advertising (Code of Federal Regulations)
Personal services (subject to employer/employee relationship)	Civil Service Regulations
Advice from an advisory committee	Federal Advisory Committee Act--Civil Service Regulations
Expert nonpersonal services (consultant, field reader, and the like)	Negotiated procurement by contract (Code of Federal Regulations)
Task completions (development of end items, new methods, or other tangible results)	Negotiated procurement by contract (Code of Federal Regulations)
Level of effort with a report describing the results of the effort	Grant award (Code of Federal Regulations)

necessary to decide whether to use a contract or grant; NIE policy stipulates that the contract is usually the preferred instrument); (2) legally mandated activities [for example, the Code of Federal Regulations stipulates that the contracting officer will issue any Request for Proposal (RFP) and will be responsible for receiving and handling all solicited proposals]; and (3) activities that are necessary to implement the policies (for example, both Titles 41 and 45 of the Code of Federal Regulations stipulate that all proposals must be evaluated according to uniform criteria; developing uniform proposal evaluation criteria for each procurement action is thus necessary for implementing the regulation).

III DECISIONS AND ACTIVITIES IN THE PROCUREMENT OF EDUCATION R&D

In this section we describe the general process for the procurement of education R&D by NIE. We identify key decision points and describe the procurement regulations or policy directives applicable at each point. We also describe the activities to be carried out by the project officer, as mandated by the regulations and directives, during each phase of the procurement process.

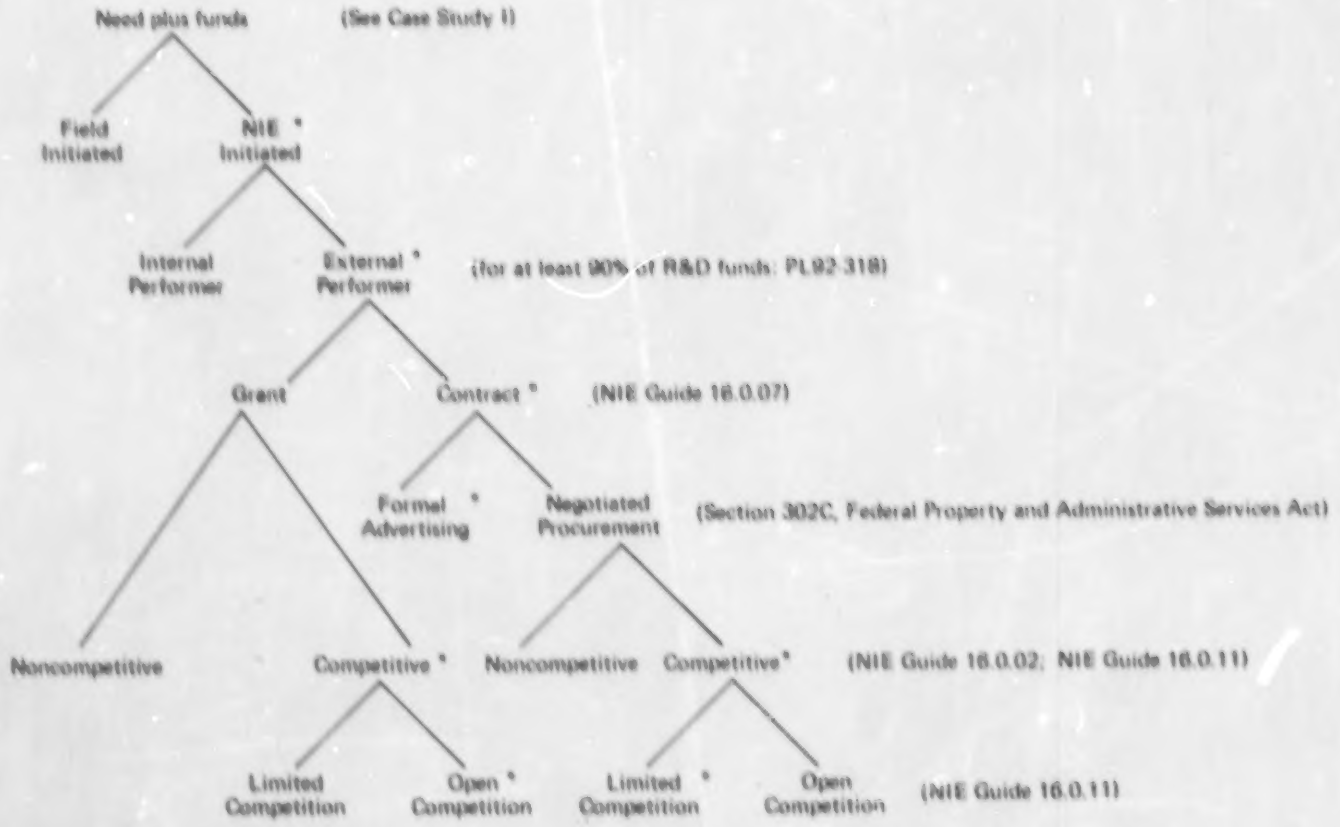
We will assume a need has been identified and resources are available to underwrite R&D addressed to that need. (Obviously these two requirements are themselves the result of policy decisions by the Congress and NCER.) An idea to meet the need may be developed by someone in the field who has had no contact with the project officer and who submits the idea as an unsolicited proposal, or the idea may be developed by the project officer himself. We will consider only the latter case. (See Figure II-4 for the procurement process decision tree.) One of the first decisions the NIE project officer[*] must make is whether to use an internal or external performer.

Internal or External Performer

NIE's authorizing legislation stipulated that at least 90% of its operating funds be spent externally. Technically, then, up to 10% of NIE's R&D may be performed internally. In this hypothetical case, if NIE had not already obligated 10% of its operating budget to other

---

[*] Although we use the project officer as the decision maker, we understand these decisions may be made at the level of Director, Deputy Director, Assistant Director, project officer, or in combination.


Need plus funds
(See Case Study I)
Field Initiated
NIE * Initiated
Internal Performer
External * Performer
(for at least 90% of R&D funds: PL92-318)
Grant
Contract *
(NIE Guide 16.0.07)
Formal * Advertising
Negotiated Procurement
(Section 302C, Federal Property and Administrative Services Act)
Noncompetitive
Competitive *
Noncompetitive
Competitive*
(NIE Guide 16.0.02; NIE Guide 16.0.11)
Limited Competition
Open * Competition
Limited * Competition
Open Competition
(NIE Guide 16.0.11)

*Indicates the policy-preferred decision. Policy source is in parentheses. NIE Guide is based on Chapters 1 and 3 of Title 41, Federal Procurement Regulations and on Chapter 14, Title 45, of the Federal Procurement Regulations. See following page for exceptions.

FIGURE II-4 NIE PROJECT OFFICER R & D PROCUREMENT DECISIONS

EXCEPTIONS TO POLICY-PREFERRED DECISIONS
(For Figure II-4)

External performer is preferred to internal performer

Exception: If at least 90% of the agency's funds have been or will be committed to extramural work, then an internal performer may be preferred.

Contract is preferred to grant

Exception: If it is determined that all of the following conditions can be met:

(a) The purpose of the program/project is for the financial support of an individual, a group, or an organization.

(b) The objectives of the program/project are not so essential as to preclude unilateral termination of the agreement by the grantee without penalty or recourse by the Institute.

(c) Performance of the program/project and the nature and contents thereof may be predicated on a best-effort basis and may be left to the primary discretion of the researcher or organization.

Notwithstanding the foregoing, the contract shall be mandatory when (1) an award is to be made to a profit-making organization, or (2) payment of an amount in excess of actual costs (i.e., profit or fee) [is] intended (NIE Guide 16.0.07, pp. 2-3).

Formal advertising is preferred to negotiated procurement

Exception: There are fifteen exceptions, one of which is the procurement of research and development.

Competitive procurement is preferred to noncompetitive procurement

Exception: When one organization or individual possesses predominant capability to the extent of precluding meaningful competition.

internal R&D, the project officer might decide that the work could best be done internally. Practically, a number of factors unrelated to the procurement regulations probably determine the outcome of this decision, including:

- Budget Slack--When resources are less than anticipated, potential internal research funds are probably allocated, for political reasons, to external funding.
- Organization Stability--The best way for project officers to guarantee the stability of their funds is to obligate them in legally binding contracts. If a project officer is worried that other programs may raid his budget, he may decide to use external contracts even though the work could be performed adequately internally.
- Internal Capability--At the current level of effort, NIE's internal research capability is substantially limited to small-scale research and policy studies in those few areas in which research personnel are already on the staff.
- Internal Communication--The project officer must be aware of the research capability inside NIE.

Assuming that the project officer has decided the work should be performed externally, the next decision may be whether to use a grant or contract to procure the needed work.

Grant or Contract

The principal distinction between the grant and the contract is in the degree of responsibility for performance stipulated under each instrument.

> A contract is an agreement between two or more persons consisting of a promise or mutual promises which the law will enforce, or the performance of which the law in some way recognizes as a duty. A grant, on the other hand, is a payment in cash or in kind made to provide assistance for specified purposes (NIE Guide No. 16.0.07, January 16, 1975, p. 1).

Making the decision between the use of a grant instrument and the use of a contract instrument is not always easy, but it is NIE policy to use the contract whenever possible (NIE Guide No. 16.0.07, January 16, 1975, p. 2). NIE specifies that the contract is the mandatory fiscal instrument unless all of the following conditions can be met:

- The purpose of the program/project is for the financial support of an individual, a group, or an organization.
- The objectives of the program/project are not so essential as to preclude unilateral termination of the agreement by the grantee without penalty or recourse by the Institute.
- Performance of the program/project and the nature and contents thereof may be predicated on a best-effort basis and may be left to the primary discretion of the researcher or organization (NIE Guide No. 16.0.07, January 16, 1975, pp. 2-3).

In addition, no grant may be awarded to a profit-making organization or for an amount larger than actual costs (NIE Guide No. 16.0.07, January 16, 1975, p. 3).

The procedures leading to the award of a grant are governed by Chapter 14 of Title 45 of the Code of Federal Regulations; those leading to the award of a contract are governed by Chapters 1 and 3 of Title 41 of the Code of Federal Regulations. Because the procedures are somewhat different (although still falling within the general procurement process described above), each is discussed separately below.

Procurement via the Contract Instrument*

Presolicitation Phase--During the presolicitation phase, the project officer must generate all the information necessary to make a legal and successful solicitation. The basic activities include describing the work to be done, developing a list of potential sources who might do the work, and describing the criteria by which the various offers to do the work will be evaluated.

---

*This section discusses procurement of what might be termed corporate goods and services. The contract may also be used to procure individual expert and consultant services (see NIE Guide No. 16.0.05).

The description of work to be done forms the basis for soliciting offers from the field and provides the technical provisions that will ultimately be incorporated in the procurement contract. It allows the project officer to justify using a negotiated procurement rather than the formal advertising method of procurement. The specification of the statement of work must include "a precise statement of the objectives sought, the work to be performed in reaching those objectives, and the specific areas of investigation required" (NIE Guide No. 16.0.10, January 16, 1975, p. 2). When applicable, information on helpful background information, technical requirements, parameters for measurement of effort, and other special considerations should also be included (NIE Guide No. 16.0.10, January 16, 1975, pp. 2-3). The HEW guidelines for project officers heavily stress the importance of specificity in the work statement.

> The work statement should be worded so as to make more than one interpretation virtually impossible .... The work statement should state specifically what the contractor and the Government agree to do; requirements should be stated so clearly that the Government project officer who is responsible for acceptance of the product or report will have no difficulty in determining if the contractor has complied with the contract. If the work statement does not state exactly what is wanted or does not state it well, it will be ambiguous and will generate many contract management problems for both the project officer and the contracting officer. Ambiguous work statements can create unsatisfactory performance, delays, disputes, and result in higher costs (HEW, July 1971, pp. 5-6).

> In concert with the statement of work, the project officer should develop the criteria that will be used to evaluate proposals. These should include:

a. Understanding of the statement of work ...

b. Availability of competence in personnel ...

c. Innovative ideas ...

d. Availability of facilities ...

e. Willingness to devote resources ...

f. Management and organization structure ...

g. Capability and capacity to enter into successive phases of study ... (NIE Guide No. 16.0.10, January 16, 1975, p. 3).

Evaluation criteria must be written in specific terms "that will be readily understood by the evaluator. They should be discriminating, capable of allowing the user to draw clear distinctions between competing proposals" (NIE Guide No. 16.0.10, January 16, 1975, p. 3).

Developing a source selection strategy in effect defines the universe from which proposals will be drawn. The two extremes are soliciting from all interested sources and soliciting only from a single source. Both extremes are to be avoided "unless clearly warranted" according to the NIE Guide (NIE Guide No. 16.0.11, January 16, 1975). If it is clear that only one organization (or one individual, in the case of a consultant contract) has the capability to perform the needed work, then the project officer may recommend a noncompetitive, or sole-source, solicitation and procurement. This must be justified by the project officer with respect to:

- Why meaningful competition is precluded.
- How the proposed contractor exclusively meets the requirements of the competition.
- How other sources in the field lack the particular requisite capabilities (NIE Guide No. 16.0.02, January 16, 1975, pp. 1-2).

For procurements above $2500, the justification must be reviewed by a Project Review Board or the NIE Contracts and Grants Review Board. The justification must be approved by the Chief of the Contracts and Grants Management Division for procurements up to $25,000, by the Associate Director for Administration for procurements up to $100,000 and by the Deputy Director or Director for procurements above $100,000 (NIE Guide No. 16.0.02, January 16, 1975, pp. 2-3).

Assuming that a sole-source solicitation and procurement is not justified, sources may be drawn from the project officer's own professional contacts, journals, the NIE lists of potential bidders compiled from Standard Form 129, Bidder's Mailing List Applications, and replies to Commerce Business Daily synopses. The Federal Procurement Regulations require that a synopsis of proposed procurements greater than $5000 (whether competitive or noncompetitive) be published in Commerce Business Daily. There are three types of synopses, two of which may yield candidates for the source selection list. A Request for Proposal Available synopsis describes the proposed procurement and tells prospective offerors how to obtain a copy of the procurement request. A Sources Sought synopsis describes the proposed procurement (or a more general area in which work may be supported), the criteria to be used in evaluating potential sources, and asks interested potential sources to submit information on their technical capabilities. It is NIE policy that when all known potential sources are not solicited, the project officer must justify the elimination of inadequate ones (NIE Guide No. 16.0.11, January 16, 1975, p. 3). Once the final source list has been generated, if all potential sources are not solicited and if the procurement will exceed $300,000, the list must be approved by the NIE Contracts and Grants Review Board (NIE Guide 16.0.04, January 16, 1975, p. 3).

After the above presolicitation activities have been completed, the description of the statement of work must be reviewed and approved by an RFP review group (NIE Guide 16.0.04, January 16, 1975, p. 2). The review group includes the contracting officer, the project officer, and one or more individuals from outside the funding office.

After approval by the review group, the project officer must submit a Funds Commitment Request (FCR) to the contracts officer. The FCR and requisite attachments "will constitute the working documents upon which the contracting officer will rely in the exercise of his/her responsibility and authority to enter into and administer contracts and grants consistent with the requirements of law and regulation" (NIE Guide No. 16.0.01, January 16, 1975, p. 1). The following documentation must accompany the FCR:

- Statement of work/specification ...
- Criteria upon which evaluation of proposals will be predicated ...
- Detailed estimate of costs ...
- If applicable, a listing of sources ... (NIE Guide No. 16.0.01, January 16, 1975, p. 1).

The FCR must also be accompanied by applicable approvals: source selection list approval from the NIE Contracts and Grants Review Board; statement of work approval by the RFP review board; approval by the Associate Director of the funding office if the procurement is less than $300,000; approval by the Deputy Director if it is greater than $300,000.

The contracting officer uses the FCR and attachments to prepare the Request for Proposal. The RFP has two purposes:

- To convey to prospective contractors the information needed to prepare a proposal.
- To solicit the information that procurement and technical personnel need to appraise the proposals of prospective contractors (HEW, July 1971, p. 39).

Although the project officer is in the best position to describe the work that is needed, only the contracting officer has the legal authority to request a proposal (NIE Guide No. 16.0.10, January 16, 1975, p. 1).

The RFP must be in writing, must specify a deadline for proposal submission, and must specify that any questions about the request should be referred to the appropriate contracts officer. The RFP must include:

> ... the terms, conditions, and provisions that will constitute the final definitive contract, and specify all the information that prospective contractors are required to furnish to permit a meaningful and equitable evaluation of their offerors. Criteria for evaluating prospective contractor proposals will be stated along with their relative weights (NIE Guide No. 16.0.10, January 16, 1975, p. 2).

The completion of the RFP concludes the presolicitation phase.

Solicitation Phase--During the solicitation phase, distributing the RFP, answering any questions from prospective offerors, conducting the conference for prospective offerors if one is held, and receiving and handling proposals are all responsibilities of the contracting officer. The principal goal during this period is to ensure that all prospective offerors receive "the same information, and [that] no action should be taken which might give one organization an advantage over others" (NIE Guide No. 16.0.10, January 16, 1975, p. 4). The deadline for receipt of proposals stipulated in the RFP marks the end of the solicitation phase (although the government reserves the right to consider late proposals if they offer considerable advantage to the government).

Proposal Evaluation Phase--The purpose of the proposal evaluation phase is to select, from all proposals submitted, those that represent the competitive range in terms of technical quality and cost for purposes of negotiation. The principal steps in this process are an evaluation of the technical quality and cost factors of each proposal, and a determination of the firms or firm with which to conduct negotiations (NIE Guide No. 16.0.12, January 16, 1975).

The technical evaluation of proposals is performed by the project officer and others in accordance with the evaluation criteria stated in the RFP. Both the proposed work and the offeror's capabilities are assessed. At the conclusion of the technical evaluation, all proposals should be ranked in order of technical quality. As an aid in the ranking process, each evaluation criterion should be assigned a weighting factor based on the relative importance of the criterion to the project (NIE Guide No. 16.0.12, January 16, 1975, p. 2).

The cost evaluation is performed by the contracting officer working "in conjunction with" the project officer. In this evaluation, cost/price estimates and the offeror's financial strength and management ability are assessed.

The synthesis of the two evaluations yields a ranking of all proposals on both technical and cost/price grounds. It is the responsibility of the contract officer to use this ranking to determine the firms or firm with which to negotiate. According to the NIE Guide, the overriding consideration must be, "With which firms will the conduct of discussions prove meaningful?" (NIE Guide No. 16.0.12, January 16, 1975, p. 3.) The contract officer should use the following procedures to determine which proposals fall within the competitive range:

- Eliminate ... proposals from firms ... with neither the capacity nor credit to perform.
- Eliminate technically unacceptable proposals.
- Eliminate proposals that would be made unacceptable based on the probable consequences of required cost reductions.
- Eliminate proposals that, although technically acceptable, are predicated on pricing considered excessive when

> compared with proposals of equal technical scoring and that are not susceptible to the conduct of meaningful negotiations (NIE Guide No. 16.0.12, January 16, 1975, p. 3).

The remaining proposals constitute the competitive range. Federal Procurement Regulations require that "written or oral discussions shall be conducted with all responsible offerors who submitted proposals within a competitive range, price and other factors considered" (HEW, July 1971, pp. 48-49).

Negotiation Phase--The purpose of the negotiation phase is to procure the contract most advantageous to the government. The Comptroller General has determined that even though initial proposals may have been evaluated as acceptable, this does not invalidate the necessity for negotiation (HEW, July 1971, p. 49). Moreover, the Comptroller General has also held that technical superiority cannot be the sole basis for award of a contract under a negotiated procurement (HEW, July 1971, p. 50). Discussions, led by the contracting officer, are held with all offerors within the competitive range, "predicated on the proposal deficiencies as determined during the [proposed] evaluation" (NIE Guide No. 16.0.12, January 16, 1975, p. 3). The end result of the negotiation process should be mutual agreement between the government and one offeror (or more than one offeror if the RFP provided for multiple awards) that the offeror "can perform in the best interest of the Institute, price and other factors considered" (NIE Guide No. 16.0.12, January 16, 1975, pp. 3-4).

It is then the responsibility of the contracting officer to prepare the contract reflecting agreements reached during negotiations. The contract is first signed by the contractor, then by the NIE contract officer (HEW, July 1971, p. 54).

Postaward Administration Phase--During this phase, the NIE project officer monitors performance in accordance with the terms of the contract, provides appropriate technical direction, recommends any appropriate corrective actions to the contracting officer (for example, extensions, termination, or modifications), and performs final review and acceptance of the services or products delivered under the contract. After final review and acceptance, it is the responsibility of the contract officer to close out the contract.

Procurement via the Grant Instrument

Many of the considerations for grant procurement are similar to those for contract procurement. Competition is encouraged, all applicants must be evaluated uniformly, and there may be negotiation of budgets for the competitive range of applicants. One major difference is that, whereas the regulations for procurement by contract are written by the General Services Administration and therefore are fairly uniform across all civilian agencies, the regulations for the award of grants are written by individual agencies. Proposed grant regulations must be published in the Federal Register to allow for review and comment by any interested parties. This publication requirement applies both to general regulations governing all grant competitions and to program-specific regulations. A second major difference is that the scope of work is usually much less precisely specified in a Grant Announcement than in a RFP.

Award and administration of grants require:

- Public notice of grant programs through publication of program specific regulations in the Federal Register.
- Solicitation of applications or proposals through program announcements.
- Establishment of firm cutoff dates for receipt of applications/proposals/prospectuses.

- Uniform evaluation procedures for all applications/ proposals/prospectuses.
- Negotiation of budgets based on analysis of reasonableness of budget.
- Approval of award slate by Deputy Director or Director.
- Individual grant actions awarded noncompetitively to be justified and approved in the same manner as noncompetitive contracts (NIE Guide No. 16.0.07, January 16, 1975, p. 2).

IV POLICY IMPLICATIONS FOR EXPU SYSTEM USING THE ANALYTIC FRAMEWORK

Sections II and III described the components of NIE's procurement system: the major sources of policy influencing NIE's procurement of education R&D, the major policies, the agents who enforce those policies, and the decisions and activities necessary to implement the policies. In this section we attempt to describe and assess some of the interactions among agents, policies, and activities.

Structural Interaction

The two principal agents in procuring education R&D are the project officer and the contracting officer. Within NIE (as is the case with most government agencies), the project officer and the contracting officer are in different portions of the organization (see Figure II-5). As a result of this structural placement, the two principal agents in any procurement action report to different superiors, have different colleagues, different norms, and different paths for career advancement. Yet the ease with which they communicate with one another and the quality of their communication influence the entire procurement process.

Consideration of structural interaction raises several interesting questions. The most obvious is: What are the communications patterns between project officer and contracting officer? This question has several components:

- How do patterns vary across individuals?
- How do they vary across stages of the procurement process?
- How do they vary across time within and across stages of the procurement process?

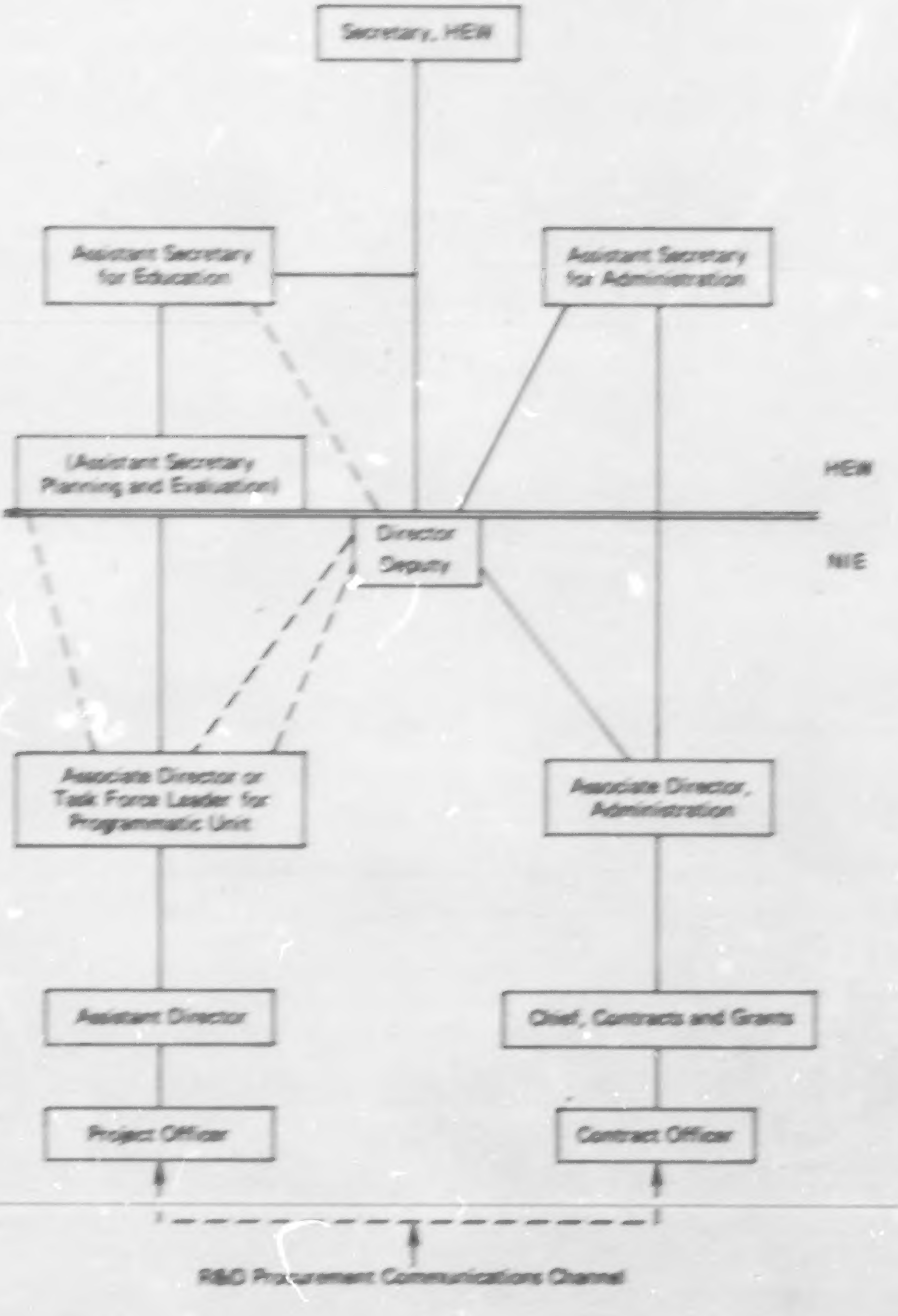

Secretary, HEW
Assistant Secretary for Education
Assistant Secretary for Administration
(Assistant Secretary Planning and Evaluation)
HEW
Director Deputy
NIE
Associate Director or Task Force Leader for Programmatic Unit
Associate Director, Administration
Assistant Director
Chief, Contracts and Grants
Project Officer
Contract Officer
R&D Procurement Communications Channel

FIGURE II-5 NIE ORGANIZATION FOR R&D PROCUREMENT AND ADMINISTRATION

- Is it possible to identify specific "areas of ignorance" for either the project officer or contracting officer that have a negative impact on their communication during the procurement process?

It is interesting to note that even though NIE's procurement process requires the cooperation of the project officer and the contracting officer, neither's performance is evaluated by the other or the other's superior. Thus it might be useful to determine the effect of personnel evaluation policies upon the procurement process; for example:

- What criteria does the agent's superior employ in assessing the agent's performance with respect to procurement?
- What criteria would the contract officer's superior wish to employ in evaluating the project officer?
- What criteria would the project officer's superior wish to employ in evaluating the contract officer?

Review and Sign-Off Interaction with Different Variables

Between the project officer's initial idea for a procurement action and the contract officer's closeout of a completed contract, there are a number of points at which actions or decisions must be reviewed or approved by various NIE authorities (see Figure II-6). The level of review and sign-off varies according to at least three variables: size of award, type of competition, and procurement instrument (contract or grant). Variation in the level of review and sign-off is also related to the amount of time necessary to complete each step in the procurement process.

It would be useful to have reasonable time estimates for the various activities represented in Figure II-6. Then it would be possible to answer trade-off questions such as the following:

- Which "costs" more time: a contract procurement or a grant procurement?

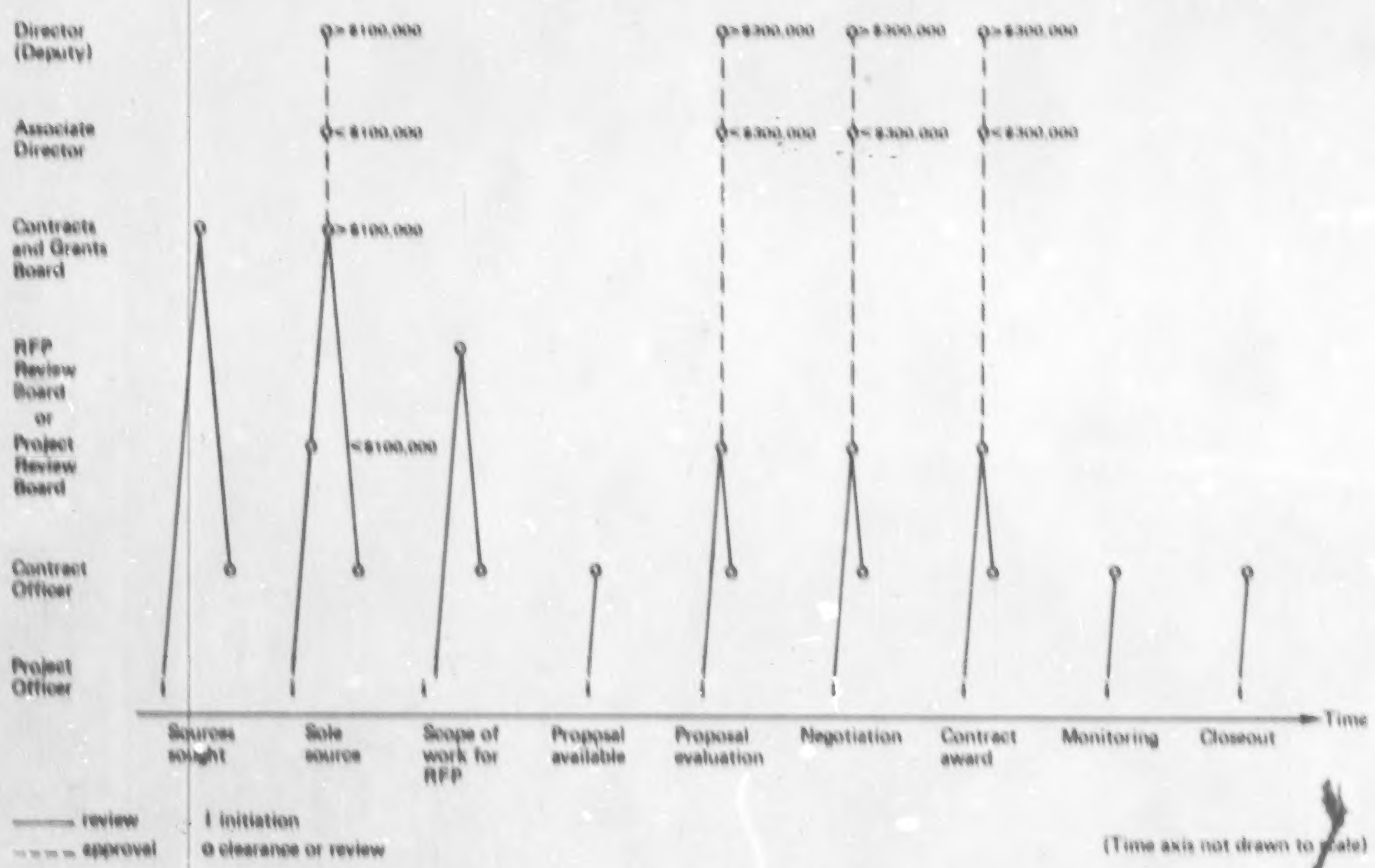

Director (Deputy)
Associate Director
Contracts and Grants Board
RFP Review Board or Project Review Board
Contract Officer
Project Officer
> $100,000
< $100,000
> $100,000
< $100,000
> $300,000
< $300,000
> $300,000
< $300,000
> $300,000
< $300,000
Sources sought
Sole source
Scope of work for RFP
Proposal available
Proposal evaluation
Negotiation
Contract award
Monitoring
Closeout
Time
review
approval
I initiation
o clearance or review
(Time axis not drawn to scale)

FIGURE II-6 REVIEW AND APPROVAL FOR VARIOUS PROCUREMENT ACTIVITIES

- In choosing a competitive or noncompetitive procurement action, which "costs" more in the eyes of the project officer: the time it takes to process a competitive procurement, or the level of sign-off and justification necessary for a sole-source procurement?
- What are the trade-offs between time and justification in choosing open or limited contract competition? (This question identifies an apparent anomaly in NIE procurement policy. The preferred policy is to use limited rather than open competition for contracts (NIE Guide No. 16.0.11). Yet, if competition is limited, the project officer must justify the elimination of sources considered inadequate and, if the procurement is greater than $300,000, must obtain approval of the source list from the Contracts and Grants Board. Thus it would seem that the preferred policy demands more effort than the nonpreferred policy.)

NIE Interaction with the Field

At the same time that the procurement policies create a number of interaction points for various agents within NIE, they also create interaction points between NIE and the "field," i.e., the performers of education R&D who may be potential offerors for any particular procurement activity (see Figure II-7). The character of those interactions most certainly influences the quality of any procurement.

Because publication of Commerce Business Daily synopses is the standard method of soliciting offerors according to the procurement regulations, it would be interesting to know: What proportion of proposals to NIE are generated as a result of that process? What kinds of potential offerors do or do not read Commerce Business Daily? How much does it cost a firm (and thereby the government, via overhead costs) to support a Commerce Business Daily monitoring capability? If responses to synopses do not constitute the majority of names on any particular list of sources sought, how are the names generated? What is the relationship

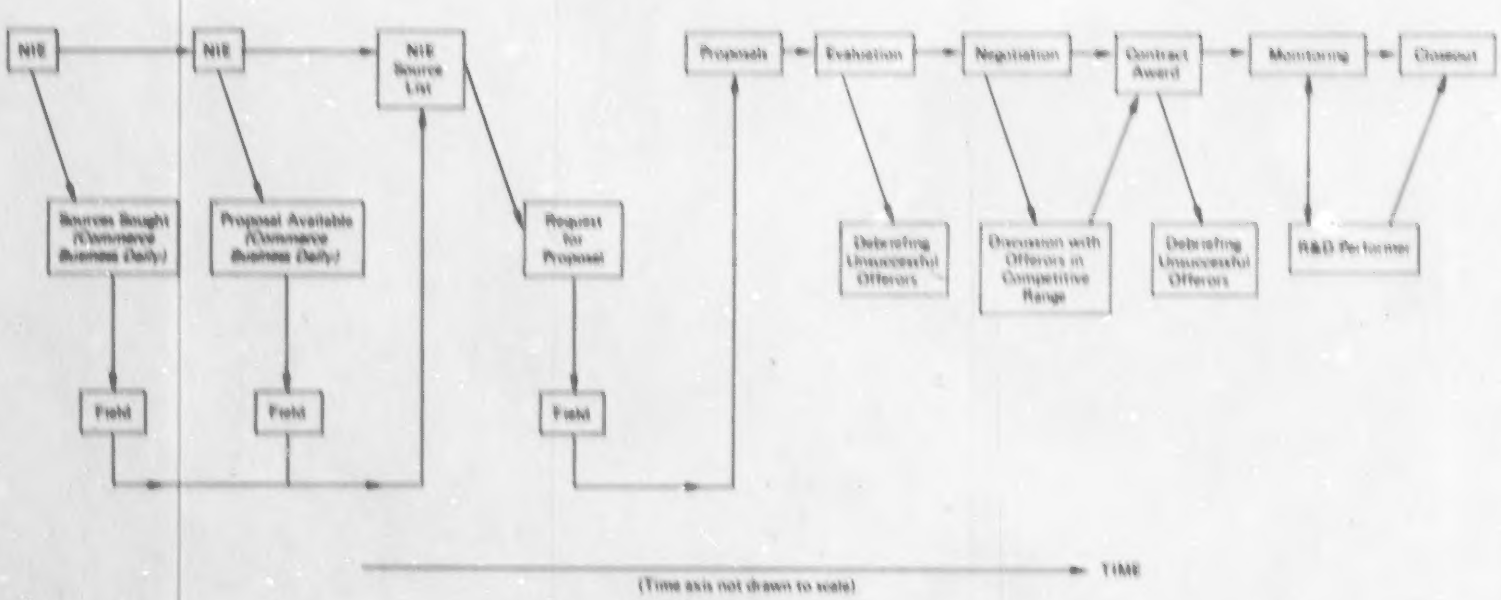

NIE
NIE
NIE Source List
Sources Sought (Commerce Business Daily)
Proposal Available (Commerce Business Daily)
Request for Proposal
Field
Field
Field
Proposals
Evaluation
Negotiation
Contract Award
Monitoring
Closeout
Debriefing Unsuccessful Offerors
Discussion with Offerors in Competitive Range
Debriefing Unsuccessful Offerors
R&D Performer
TIME
(Time axis not drawn to scale)

FIGURE II-7 INTERACTION BETWEEN NIE AND THE "FIELD" DURING THE PROCUREMENT PROCESS (CONTRACT INSTRUMENT – COMPETITIVE PROCUREMENT)

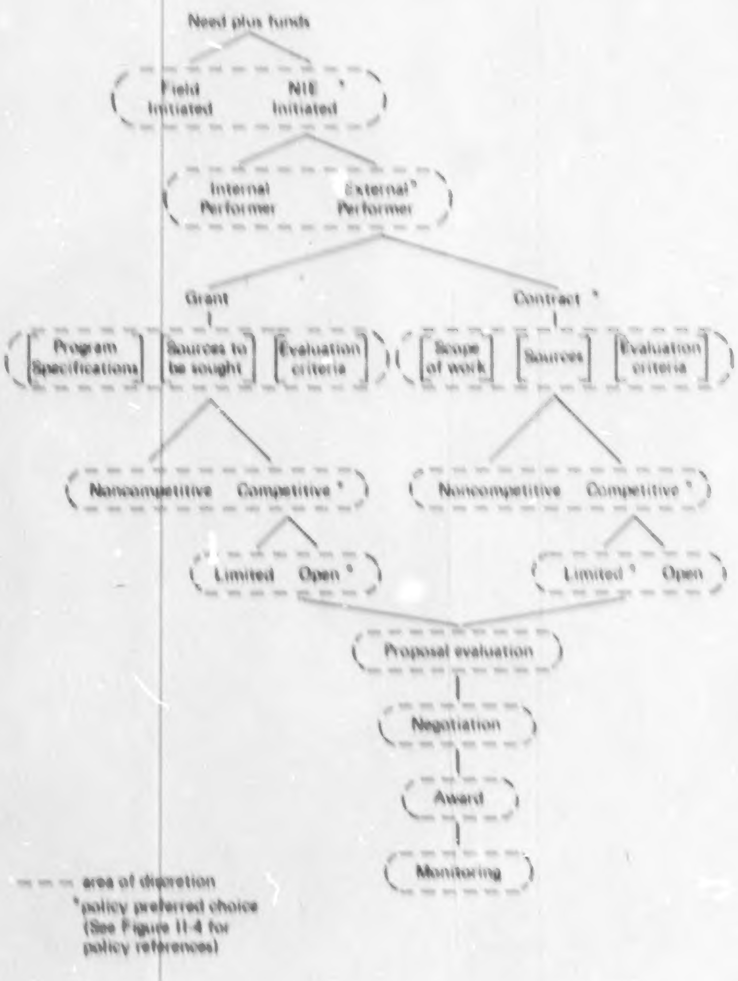
between the manner in which a source is solicited and the later awarding of a contract?

Once the RFP has been sent to the field, undoubtedly a number of factors influence which potential offerors actually submit proposals. Within the context of the formal regulations, however (i.e., excluding the technical quality of the RFP), one of the most important variables is probably the amount of time allowed for an offeror to submit a proposal. What is the relationship between allowed response time and the number of proposals submitted? What is the relationship between allowed response time and characteristics of the offeror?

Areas of Discretion

To this point we have attempted to delineate only those decisions, activities, and interactions prescribed by formal procurement policies. However, one of the important characteristics of procurement policies and regulations is that, despite their codified and mandatory provisions, they provide large areas of discretion for the project officer. In most cases these areas of discretion may have greater impact on the procurement process and its outcomes than do the formally prescribed activities. Here we can do no more than point out some of the most important areas of discretion and suggest some of their components. A thorough analysis of each of these areas would be appropriate for a second-generation research project growing out of the work accomplished thus far.

In Figure II-4 we presented a simplified decision tree of the procurement process, indicating at each node the policy-preferred branch. In almost all situations, every node and every branch of that tree provides an area of discretion for the project manager (see Figure II-8). For most procurement actions, the discretionary activities are governed by a combination of individual judgement and agencywide R&D management philosophy or style.


Need plus funds
Field Initiated
NIE Initiated *
Internal Performer
External* Performer
Grant
Contract *
Program Specifications
Sources to be sought
Evaluation criteria
Scope of work
Sources
Evaluation criteria
Noncompetitive
Competitive *
Noncompetitive
Competitive *
Limited
Open *
Limited *
Open
Proposal evaluation
Negotiation
Award
Monitoring
area of discretion
*policy preferred choice (See Figure II-4 for policy references)

Mandatory Policy Limits to Discretion †	Discretionary Activities	Resources Needed
None	Needs assessment/ technology assessment	Level of capability and interest in field.
80% or more of funds to external performers	Needs assessment/ technology assessment	Locus of expertise. Time available.
No grants for greater than cost or to for profit firms	Defining the problem. Writing scope of work. Selecting sources. Defining evaluation criteria.	Personnel available for evaluating proposals and for monitoring work. Time available. Knowledge about problem area.
None	Justifying sole source.	Source capability.
None	Justifying limited competition.	Sources capabilities.
None	Applying evaluation criteria and setting competitive range.	Personnel available. Time available. Knowledge about problem area. Money for site visits, if appropriate.
None	Negotiating.	
None	Determining the "best offer"	
None	Monitoring and accepting final products.	

†subject to authority of contract officer

FIGURE II-8 AREAS OF DISCRETION IN R&D PROCUREMENT FOR NIE PROJECT OFFICER

Making the decision between field initiation or NIE initiation of a procurement action depends to a large extent on the level of capability and interest in the field, but it also depends on the management philosophy adopted by the agency. To what extent does the agency see itself as a "directive" manager? Making the decision between an intramural or extramural performer depends on the locus of expertise and the extent to which the agency considers it "important" to develop its internal research capability. Problem definition is probably the most important area of discretion. The decision who should have this discretion determines, in many cases, whether a grant or contract procedure should be used. It determines whether a competitive or noncompetitive procurement should be employed. It influences the composition of the sources-sought list. It affects the quality of proposals received from the field and the procedures and criteria used to evaluate them. Negotiation, contract or grant award, and monitoring also entail discretionary activities on the part of the project officer. (See Biderman and Sharp [1972] for a discussion of areas of discretion in the procurement process within the context of procuring social program evaluation research.)

To better understand the areas of discretion within the procurement process, it would be helpful to have an adequate description of NIE's R&D management philosophy. It would also be helpful to attempt to understand relationships among various project officer characteristics and outcomes in areas of discretion. One might wish to examine the project officer's prior procurement experience (within NIE or other government agencies), his or her level and degree of professional association with the field, his or her relationship with the contracting officer, and so on. It would also be useful to understand limits to the areas of discretion--for example, the role of deadlines.

Annex

TAXONOMY OF POLICIES CONSIDERED SIGNIFICANT IN THE STUDY OF FEDERAL COMPETITIVE PROCUREMENT POLICIES

Annex

TAXONOMY OF POLICIES CONSIDERED SIGNIFICANT IN THE STUDY OF FEDERAL COMPETITIVE PROCUREMENT POLICIES

Policy Name	Reference Citation	Policy Type and Generation Process	Source	Explanation of Significance
Federal Property and Administrative Services, October 1949, Title III	41 U.S.C. 251-260	Statutory Law (Enactment)	Federal (Legislative) (U.S. Congress)	Authorizes the President or the Administrator of GSA to prescribe procurement regulations or policies for civilian agencies.
Federal Procurement Regulations	41 C.F.R., Chapters 1 and 3	Administrative Law (Regulations)	Federal (Administrative)	General regulations covering federal procurement.
NIE Procurement Regulations	45 C.F.R., Chapter 14	Administrative Law (Regulations)	Federal (Administrative) (NIE)	Regulations governing the NIE award and administration of educational research grants.
NIE Guidelines	Not codified (NIE internal policy)	Administrative Law (Guidelines)	Federal (Administrative) (NIE)	Guidelines that explain agency policy and suggest the appropriate policy.

REFERENCES

Biderman, A. D., and L. M. Sharp, The Competitive Evaluation Research Industry, Bureau of Social Science Research, Inc., Washington, D.C. (May 1972).

Commission on Government Procurement, Report of the Commission on Government Procurement: Vol. I: General Procurement Considerations; Vol. II: Acquisition of Research and Development (Part B) (USGPO, Washington, D.C., 1972).

HEW, The Negotiated Contracting Process: A Guide for Project Officers, HEW, Washington, D.C. (July 1971).

NIE, Directives System, Guides 16.0.01 to 16.0.13, NIE, Washington, D.C.

Case Study III

ASSESSING THE IMPACT OF POLICIES THAT CONTROL THE AVAILABILITY OF INFORMATION

by

O. W. Markley
and
Ruth Miller

CONTENTS

LIST OF TABLES. . . . . III-v

I INTRODUCTION III-1

II FORMAL ASSESSMENT OF POLICY IMPACTS. III-3

III FIVE POLICIES THAT CONTROL THE AVAILABILITY OF INFORMATION. III-5

IV ALTERNATIVE APPROACHES TO POLICY IMPACT ASSESSMENT III-9

- Alternative One. III-12
- Alternative Two. III-13
- Alternative Three. III-15
- Alternative Four III-16

V RECOMMENDATIONS. III-17

Annex: TAXONOMY OF POLICIES CONSIDERED SIGNIFICANT IN THE AVAILABILITY OF INFORMATION III-19

REFERENCES. III-23

TABLES

III-1 Levels of Public Policy that Specify Agents or Classes of Agents Protected or Subject to Impact III-6

III-2 Policies Specifying Agents Subject to Impact by the Buckley Amendment III-8

III-3 Excerpt from 20 U.S.C. 1232g Dealing with Access to Student Files by Researchers. III-11

I INTRODUCTION

Policies that control the availability of information are always of concern in a free society. They are of particular significance to a field of inquiry such as knowledge production and utilization (KPU), where information is, by definition, its most precious resource. It is therefore important that suitable methods and information bases be available through which to assess the impact that such policies might have on the KPU infrastructure. The capability to conduct a policy impact assessment appears especially needed in KPU because of the recent "Buckley Amendment," which would make research access to student records difficult under many circumstances.

Because the art of policy impact assessment has not been well-developed, the objectives of this case topic are essentially twofold: to explore the utility of the analytical framework for helping assess the impacts of given policies on educational KPU (EKPU), and to derive preliminary implications (including information requirements) for a monitoring system.

II FORMAL ASSESSMENT OF POLICY IMPACTS

Although policy impact assessment has not yet become a generally recognized analytical procedure within the field of policy science, we may infer a number of characteristics it would have, based on what is known about how to assess probable impacts of new technologies ("technology assessment"). Although technology and policy differ along many dimensions, their assessment has in common the necessity to consider social, economic, and political implications beyond those intended.

The questions that typically need to be addressed in a formal impact assessment are the following (Keifer, 1973; Kasper, 1972; Coates, 1972; Quade, 1975):*

- How will this development (that is, this technology, activity, or policy) be used?
- What consequences, direct or indirect, for good or ill, will these applications have on any or all sectors of the society or the environment?
- What responses can be expected in other areas?
- How do the desirable results balance against those that are undesirable or uncertain?
- Are the effects reversible in the short term or the long term?
- What alternatives might achieve the same results?

In general, the process of answering these questions entails a series of steps that resemble the systems method (Committee on Public Engineering Policy, 1969):

---

*A list of references is appended to this case study.

- Identify the innovation (technology, policy, or the like) to be assessed.
- Delineate the scope of the assessment and establish a data base.
- Identify alternative actions.
- Identify agents affected by the problem and by the innovation.
- Identify the impacts on the affected parties.
- Valuate or measure the impacts.
- Compare the pros and cons of alternatives (analysis).
- Draw conclusions.

In any specific assessment, however, not all of the above steps may be necessary. The specific steps that are needed depend both on the scope and the depth of the assessment and on the general approach through which it is conducted.

Regardless of the scope of the assessment and the approach used, however, the following three types of information are generally required and can be obtained at least in a preliminary fashion from the policy being assessed:

- Specification of the basic purpose of the policy, which typically includes identification of the target population (agents, activities, or configurations) whose interests would be most directly influenced by the policy.
- Specification of the agents who have some responsibility called out in the policy statements themselves[illegible]typically those who are to interpret, implement, enfor[illegible] and comply with the intent of the given policy.
- Some idea of the predominant activities through which the policy will be implemented (extent, time, place, and the like).

III FIVE POLICIES THAT CONTROL THE AVAILABILITY OF INFORMATION

A variety of policies control or significantly influence access to information in KPU. Five such policies possibly warranting impact assessment are the following:

- Public Law 93-380, Section 438, "Buckley Amendment." This law in part deals with the protection of the rights of privacy of parents and students concerning access to student files by researchers.
- Public Law 93-579, "Privacy Act of 1974." This law deals with the protection and safeguarding of an individual's privacy from the misuse of federal records by individuals and the government.
- Public Law 93-502, "Freedom of Information Act of 1974." This act deals primarily with the kinds of information that must be made available to the public from the federal agencies.
- Copyright regulations authorizing protection for materials developed under NIE grants and contracts.
- Federal Reports Act of 1942 and Office of Management and Budget (OMB) Circular No. A-40. These established policies that control the kinds of information that may be collected by the federal agencies, either through the agency or through a grantee or contractor.

In a formal impact assessment, each of these policies would need to be "broken out" in some detail to reveal their explicit and predominant purposes, agents, and activities. This would entail not only the specification of differing purposes/agents/activities within a given policy, but also the examination of various "levels" of policy as well. For instance, Table III-1 illustrates the types of policies that should be consulted because they specify agents who would need to be considered in a policy impact assessment.

Table III-1

SOURCES OF PUBLIC POLICY THAT SPECIFY AGENTS OR CLASSES OF AGENTS PROTECTED OR SUBJECT TO IMPACT

Policy	Constitution	Statutory Law (Enactment)	Administrative Law (Regulation)	Guideline	Discretionary Act	Contract
PL 93-380, Buckley Amendment		XX	X	?	X	
PL 93-579, Privacy Act of 1974	O	XX	X	X		
PL 93-502, Freedom of Information Act	O	XX	X			
Copyright regulations			XX	X	X	X
Federal Reports Act of 1942/OMB Circular No. A-40		XX	X	X	X	X

Note: XX denotes originating policy; X denotes policy that derives from originating policy; O denotes general applicability.

Table III-2 indicates the types of agents that are cited in various sources of policy related to the Buckley Amendment. Tables III-1 and III-2 together indicate that formal impact assessments of policies such as the five cited would need to include a fairly careful analysis of various sources of policy. Such assessments could be extremely complicated when the relevant policies differ at the state level, or the local level, or both levels.

Table III-2

POLICIES SPECIFYING AGENTS SUBJECT TO IMPACT BY THE BUCKLEY AMENDMENT

Agent	Constitution	Statutory Law (Enactment)	Administrative Law (Regulation)	Guidelines	Discretionary Act	Grant or Contract
Secretary of HEW		✓		Guidelines not available at time of research	✓	
Personnel of Education Division		✓	✓		✓	✓
Contractors and Grantees of Education Division		✓				✓
Personnel of State Education Division		✓	✓			
Local Education Agencies		✓	✓			
Local school officials		✓	✓		✓	
Teachers		✓				
Students	✓	✓				
Parents	✓	✓				

IV ALTERNATIVE APPROACHES TO POLICY IMPACT ASSESSMENT

A canon of decision analysis is that there is a point beyond which the gathering of additional information provides decreasing assistance (relative to its cost) in making a decision. The cost of obtaining (and analyzing) varying amounts of information relative to the impact of a given policy must be carefully considered because formal analytical approaches to impact assessments are so costly. To gain perspective regarding the amount of information that a monitoring system might need for policy impact assessments in KPU, one might consider the amount of information needed to assess the significant primary and higher order impacts* of the Buckley Amendment.

In brief, the main purpose of the Buckley Amendment (PL 93-380, Section 438) is to allow access of parents and students to student records maintained by educational institutions and agencies receiving federal program monies, and to control the release of such records. Because of its specific impact on the KPU infrastructure, we wish to focus on that part of the law dealing with access to student records [20 U.S.C., Sections 1232g (b)(1) through (b)(3)--see Table III-3], and on the requirement that researchers--unless they are the authorized representatives of certain officials for purposes of auditing or evaluating federally supported education programs--must obtain permission from all parents of students whose records are to be used for research purposes. (Because the regulations and guidelines for this law were unavailable at the time of research on this topic, we will use this somewhat oversimplified version of the Buckley Amendment for the purposes of this case topic.)

---

*By first-order impact is meant the effects that are directly intended by the policy (for example, in the Buckley Amendment, the protection of student files). Two significant second-order impacts might be that various KPU workers could no longer gain the necessary access to important data archives (for example, for unbiased selection of data series for longitudinal studies) and that the improvement of public education would thereby suffer. Examples of third-order effects might be subsequent lobbying to have this law changed or the creation of some new file not subject to the Buckley Amendment as interpreted, which would bring a whole new set of influences to KPU. We believe that second- and first-order impact assessments require tools that are similar in function to the analytical framework we have developed, if the assessments are to be at all rigorous in a rational/analytic sense.

There are four approaches one might take to develop information necessary for an impact assessment of a national-level KPU policy. In order of increasing demand for information that would be produced by a monitoring system, the alternative approaches are as follows:

- Alternative One--Without regard to specific numbers of agents and activities, infer the probable macroeffects on the whole system and on specific parts of the system, based on prior knowledge of the system and one's intuition. This approach could include group consensus techniques, such as the Delphi or the cross-impact matrix.
- Alternative Two--Based on existing information in the DATABOOK or other sources, estimate the minimum numbers of agents and activities to be impacted as a provisional data base to use with whatever impact assessment method is selected.
- Alternative Three--Conduct an ad hoc survey of selected agents/activities to make possible an accurate estimate of the information guessed at in Alternative Two, and conduct a somewhat more formal/rigorous assessment than would be suitable in Alternative Two.
- Alternative Four--Conduct one or more general data collections for subsequent editions of the DATABOOK, so that much more detailed and comprehensive information describing the

Table III-3

EXCERPT FROM 20 U.S.C. 1232g DEALING WITH ACCESS TO STUDENT FILES BY RESEARCHERS

§ 1232g. Family educational and privacy rights—Conditions for availability of funds to educational institutions; inspection and review of official records, files, and data; cumulative record folder; specific information to be made available; procedures for access to school records; reasonableness of time for such access; hearings; correction or deletion of inappropriate data

Release of records; parental consent requirement; compliance with judicial orders or subpoenas; audit and evaluation of Federally-supported education programs; written request; availability of forms; conditional transfer of information

(b)(1) No funds shall be made available under any applicable program to any State or local educational agency, any institution of higher education, any community college, any school, agency offering a preschool program, or any other educational institution which has a policy of permitting the release of personally identifiable records or files (or personal information contained therein) of students without the written consent of their parents to any individual, agency, or organization, other than to the following—

(A) other school officials, including teachers within the educational institution or local educational agency who have legitimate educational interests;

(B) officials of other schools or school systems in which the student intends to enroll, upon condition that the student's parents be notified of the transfer, receive a copy of the record if desired, and have an opportunity for a hearing to challenge the content of the record;

(C) authorized representatives of (i) the Comptroller General of the United States, (ii) the Secretary, (iii) an administrative head of an education agency (as defined in section 1221e-3 of this title), or (iv) State educational authorities, under the conditions set forth in paragraph (3) of this subsection; and

(D) in connection with a student's application for, or receipt of, financial aid.

(2) No funds shall be made available under any applicable program to any State or local educational agency, any institution of higher education, any community college, any school, agency offering a preschool program, or any other educational institution which has a policy or practice of furnishing, in any form, any personally identifiable information contained in personal school records, to any persons other than those listed in subsection (b)(1) of this section unless—

(A) there is written consent from the student's parents specifying records to be released, the reasons for such release, and to whom, and with a copy of the records to be released to the student's parents and the student if desired by the parents, or

(B) such information is furnished in compliance with judicial order, or pursuant to any lawfully issued subpoena, upon condition that parents and the students are notified of all such orders or subpoenas in advance of the compliance therewith by the educational institution or agency.

(3) Nothing contained in this section shall preclude authorized representatives of (A) the Comptroller General of the United States, (B) the Secretary, (C) an administrative head of an education agency or (D) State educational authorities from having access to student or other records which may be necessary in connection with the audit and evaluation of Federally-supported education program, or in connection with the enforcement of the Federal legal requirements which relate to such programs: *Provided*, That, except when collection of personally identifiable data is specifically authorized by Federal law, any data collected by such officials with respect to individual students shall not include information (including social security numbers) which would permit the personal identification of such students or their parents after the data so obtained has been collected.

(4)(A) With respect to subsections (c)(1) and (c)(2) and (c)(3) of this section, all persons, agencies, or organizations desiring access to the records of a student shall be required to sign a written form which shall be kept permanently with the file of the student, but only for inspection by the parents or student, indicating specifically the legitimate educational or other interest that each person, agency, or organization has in seeking this information. Such form shall be available to parents and to the school official responsible for record maintenance as a means of auditing the operation of the system.

(B) With respect to this subsection, personal information shall only be transferred to a third party on the condition that such party will not permit any other party to have access to such information without the written consent of the parents of the student.

numbers and types of agents and activities that characterize the KPU infrastructure would be available for many purposes--including policy impact assessment.

Each of these alternatives relative to the Buckley Amendment is discussed below.

Alternative One

At the simplest level, one would reflect on possible major consequences of the amendment. For example, one could speculate on the impact of having to obtain 100% parental consent to obtain information from student records for research purposes, even though no personally identifiable information were being extracted from the records. Securing 100% permission would be difficult in most instances, but failing to obtain 100% permission would contribute an unknown bias to the results, since willingness to grant permission is almost certainly correlated with other variables of interest.

Similarly, one can reason that if only government agents or their contractors or grantees who are specifically evaluating a governmental program have access to student records, then only those researchers who work under governmentally imposed constraints (for example, the RFP/contract mode of procurement discussed in Case Study II) will have access to an important class of information. This would bring our society one step closer to what policy analyst Bertram Gross (1970) termed "friendly fascism"--a scenario in which management of information technology is one of several techniques used by a "technocratic bureaucracy" to maintain a nonrepresentative type of governance.

At a more detailed level of system operation, it is difficult to estimate the significant impacts without knowing more about which agents and activities would be most affected. Therefore, we turn to Alternative Two.

Alternative Two

In this alternative, the emphasis is on making rapid estimates without additional data collection. The approach is to obtain the best estimate, however inaccurate, of the minimum numbers and types of agents and activities to feel the impacts of the Buckley Amendment. This information would then be used in an assessment that might be more or less quantitative and more or less extensive in scope and depth.

The first step is to examine the basic policies that specify how the Buckley Amendment is to be implemented and so determine the relevant agents and activities. Table III-3 lists the most significant agents who have specifically assigned responsibilities in this regard, and Table III-2 identifies the range of agents who were cited. For simplification, we will consider only contractors and grantees of the Education Division--that part of the KPU work force usually thought of as R&D professionals. The central question is: Under the Buckley Amendment, how many such professionals, engaging in what activities, would find it necessary to spend how much time (hence money) obtaining the necessary permission to use student files and, consequently, what types of research might become infeasible?

Indicators relevant to this question are to be found in the recently published DATABOOK (National Institute of Education, 1975) and are discussed below.

Several indicators apply to persons working in the field; for example:

- In 1966, 17,000 names were found in the education publications.
- In 1974, the American Education Research Association had 10,836 members.
- Ten percent of all doctorates in education are in R&D.
- The mean estimate of the R&D work force in education is 10,000.

Without knowing what type of work these persons do, however, it is not possible to estimate the impact that the Buckley Amendment might have on them.

Under the most liberal interpretations of this policy, one might conclude that officials of all local and state education agencies would be exempt from the requirement to obtain parental permission, but that all other researchers--unless they were evaluating the effectiveness of a congressionally mandated program--would have to seek this permission. Some indications do exist of the size of the latter group and of the types of projects/products that would be impacted. For example, present NIE support to various types of institutions is as follows:

- State and local governments, 6%
- Colleges and universities, 29%
- Nonprofit and for-profit organizations, 60%
- Individuals and others, 5%.

Recent R&D programs cited by the DATABOOK as having had "exemplary outcomes" are listed below. We suspect that evaluating the outcomes of these programs required gaining access to test scores of individual students by using methods not feasible under the conditions of the Buckley Amendment.

- Arithmetic Proficiency Training Program, Science Research Associates of IBM.
- Cluster Concept Program, University of Maryland.
- Creative Learning Group Drug Education Program, Media Engineering Corp., Cambridge.
- Distar Instruction System, University of Oregon.
- Edison Responsive Environment, McGraw Edison Corp., Englewood Hills, New Jersey.
- Facilitating Inquiry in the Classroom, Northwest Regional Education Lab, Oregon.

- Frostig Program for Perceptual-Motor Development, Frostig Center of Educational Therapy, Los Angeles.
- Individually Prescribed Instruction--Math, Learning R&D Center, Pennsylvania.
- Multi-Unit School/Individually Guided Education, R&D Center of Cognitive Learning.
- Science Curriculum Improvement Study, University of California, Berkeley.
- Taba Social Studies Curriculum, San Francisco State University.

Perhaps someone more familiar with the details of educational R&D in the United States could translate this information into estimates of the numbers and types of agents and activities whose efforts would be significantly hindered by the Buckley Amendment, but we cannot. Therefore, except as noted below, we do not find the DATABOOK information adequate for our present task.

Alternative Three

Although the DATABOOK information provided little insight about agents and activities likely to be hindered by the Buckley Amendment, it provided a good starting point from which to sample in a survey. If the above agents and activities represent a relatively complete listing of the major agents and activities that currently characterize EKPU, then the listing is a realistic universe from which to select samples for a survey that would inquire directly about the impacts in question. Such a survey might determine recent research that necessitated access to student records, the nature of the use of student records, and the purposes for which the research outcomes were used. The same information could be sought for research anticipated in the near future.

One could then tabulate the results in various ways or investigate the ramifications of possibly significant impacts by procedures of the analytical framework, such as we have developed in this study.

Alternative Four

In contrast to a survey specifically oriented to impacts caused by one specific policy (discussed in Alternative Three), a much more general survey might be conducted. A general survey would attempt a description of the KPU infrastructure that would make special purpose surveys unnecessary. Thus, for example, one might envision a monitoring system that would periodically gather information about the KPU infrastructure--the numbers and types of agents, the activities, and the resources that typify that infrastructure. This would require a relatively elaborate taxonomy of agents, purposive activities, and possibly even KPU processes (for example, evaluation research).

V RECOMMENDATIONS

Although this has been a brief and only provisional look at information needs for policy impact assessment in EKPU, we believe that some useful and valid conclusions can be drawn.

First, Alternative Four is almost certainly not feasible. It would be prohibitively expensive when compared with other NIE priorities. Moreover, our experience in this study indicates that a general purpose mapping of the KPU instructive using an agent/activity taxonomy that is simple enough to be usable leaves out too much detail to be useful; correspondingly, if sufficiently detailed, it falls under its own weight. On the basis of this finding, we recommend that a generalized survey of the KPU infrastructure that is sufficiently detailed to cover the information needs of a "Buckley Amendment policy impact assessment" not be seriously considered.

Whether a survey such as was considered under Alternative Three should be sponsored depends largely on the amount of resources that NIE could devote to a given impact assessment and on the type of results that would fulfill their purposes in sponsoring the assessment. For example, assume that a major reason for sponsoring an assessment of the impacts of the Buckley Amendment would be to demonstrate to the Congress that it works a hardship on the KPU community. If one believed that the Congress would seriously consider the unsubstantiated opinions of the KPU community or other "experts," then the most economical way to proceed would be to use some variation of Alternative One--possibly a Delphi survey coupled with a cross-impact procedure (Gordon and Becker, 1973).

If the Congress requires tangible evidence of hardships and specific stakeholder groups who do or do not want the current policy changed, then it would probably be necessary: (1) to sponsor a survey (either large or small) that would identify the range and types of agents and activities in KPU that would experience a fairly direct impact; (2) to use the analytical framework we have developed, or a similar method, to determine the specific configurations in KPU that would be most severely hampered; and (3) to present specific and detailed listings of actual or probable impacts that can be strongly defended as harming EKPU.

Although the analytical framework cannot be helpful in deciding whether or not to sponsor an assessment of the Buckley Amendment's impacts on EKPU, it would be helpful in making such an assessment in a rigorous and economical way.

Because the Buckley Amendment could have enormous impacts on the "health" of educational KPU and because the relative newness of impact assessment as an analytical art does not permit much precision in selecting the best method of assessment, we recommend that NIE sponsor a brief feasibility study. If staged as the first phase of a larger study, a brief initial study might lead eventually to a useful assessment of the impact of the Buckley Amendment on EKPU. Moreover, such an empirical inquiry would give insight to the data requirements in general for policy impact analysis.

ANNEX

TAXONOMY OF POLICIES CONSIDERED SIGNIFICANT IN THE AVAILABILITY OF INFORMATION

Annex

TAXONOMY OF POLICIES CONSIDERED SIGNIFICANT IN THE AVAILABILITY OF INFORMATION

Policy Name	Reference Citation	Policy Type and Generation Process	Source	Explanation of Significance
Education Amendments of 1974, PL 93-380	20 U.S.C. 1232g	Statutory Law (Enactment)	Federal (Legislative) (U.S. Congress)	Protection of rights of privary of parents and students concerning access to student files by researchers.
Privacy Act of 1974, PL 93-579	20 U.S.C. 1232f-i	Statutory Law (Enactment)	Federal (Legislative) (U.S. Congress)	Federal legislation protecting the individual's privacy from the misuse of federal records by other individuals and the government.
Freedom of Information Act of 1974, PL 93-502	5 U.S.C. 552	Statutory Law (Enactment)	Federal (Legislative) (U.S. Congress)	Federal legislation that specifies the kinds of information that federal agents must make available to the public.
NIE copyright regulations	Not codified (NIE internal policy)	Administrative Law (Regulations)	Federal (Administration)	Illustration of one agency's policy for protection of materials developed with public funds for proprietary purposes.
		Administrative Law (Guidelines)	Federal (Administrative) (NIE)	NIE policy decision to use USOE copyright policy as an interim procedure.
Federal Reports Act of 1942, 56 Stat. 1078	44 U.S.C. 3501-3511	Statutory Law (Enactment)	Federal (Legislative) (U.S. Congress)	Establishes policy concerning the kinds of information that may be collected by the federal agencies either through the agency or through a grantee or contractor.
OMB Circular No. A-40	OMB Circular A-40	Administrative Law (Regulations)	Federal (Administrative) (OMB)	Requires permission to conduct surveys on samples of more than ten when survey is conducted for purposes of the federal government.

REFERENCES

Coates, V. T., "Technology and Public Policy: The Process of Technology Assessment in the Federal Government," George Washington University Program of Policy Studies in Science and Technology, Washington, D.C. (July 1972).

Committee on Public Engineering Policy, A Study of Technology Assessment (U.S. Government Printing Office, Washington, D.C., July 1969).

Gordon, T. J., and H. S. Becker, "Utilization of Cross-Impact in Technology Assessment," in Technology Assessment in a Dynamic Environment, M. Cetron and B. Bartocha, eds. (Gordon and Breach, New York, New York, 1973).

Gross, B. M., "Friendly Fascism," Social Policy (November/December 1970).

Kasper, R. G., ed., Technology Assessment: Understanding the Social Consequences of Technological Applications (Praeger Publishers, New York, New York, 1972).

Keifer, D. M., "Technology Assessment: A Layman's Overview," in Technology Assessment in a Dynamic Environment, M. Cetron and B. Bartocha, eds. (Gordon and Breach, New York, New York, 1973).

National Institute of Education, The Status of Educational Research and Development in the United States: 1975 DATABOOK, prepared by William Paisley and associates, Stanford University, Stanford, California.

Quade, E., Analysis for Policy Decisions (Elsevier Publishing Co., New York, New York, 1975).

Case Study IV

THE FAR WEST LABORATORY AS A RESEARCH AND DEVELOPMENT PERFORMER

by

Gary Sykes

CONTENTS

LIST OF ILLUSTRATIONS . . . . IV-v

LIST OF TABLES . . . . IV-vii

I INTRODUCTION IV-1

II CONCEPTUAL OVERVIEW IV-5

III REPORT OF FINDINGS IV-9

1965-66: Origins of Far West Laboratory IV-9
1966-72: Establishment and Growth of Far West Laboratory IV-11
Procedural Policies IV-11
Fiscal Policies IV-25
Substantive Policies IV-26
Personnel Policies IV-28
1972-75: Transition to and Impact of the NIE IV-31
Fiscal Policy IV-32
Procedural Policies IV-34
Substantive Policies IV-37
Personnel Policies IV-40
Summary IV-42

IV REFLECTIONS ON METHODOLOGY AND THE ANALYTICAL FRAMEWORK IV-45

Difficulties in Using the Analytical Framework IV-45
A Potential Source of Error in Using the Framework IV-46
Ideas for Further Exploration IV-47

V RECOMMENDATIONS IV-53

ANNEXES

A TAXONOMY OF ALL POLICIES IV-55

B TAXONOMY OF POLICIES CONSIDERED SIGNIFICANT IN THE STUDY OF THE EVOLUTION AND OPERATION OF FWL IV-63

REFERENCES IV-67

SELECTED BIBLIOGRAPHY IV-67

ILLUSTRATIONS

IV-1 Organization of Far West Laboratory: 1965 . . . . IV-16

IV-2 Proposal Review IV-18

IV-3 Steps for Developing a Laboratory Product: Levels IA and IB IV-19

IV-4 Steps for Developing a Laboratory Product: Level II IV-20

IV-5 Steps for Developing a Laboratory Product: Level III IV-21

IV-6 Steps for Developing a Laboratory Product: Level IV IV-22

IV-7 Steps for Transferring a Laboratory Product from Developmental Program to General Dissemination Program IV-23

IV-8 Steps for Requesting Developmental or Limited Copyrights IV-24

IV-9 Matrix Structure of Director's Council at Far West Regional Laboratory IV-35

IV-10 Table of Organization of the Far West Regional Laboratory IV-36

TABLES

IV-1 Policy Impacts on the Four Realms of Discretion IV-12

IV-2 A Decision-Oriented Structuring of Policies IV-50

I INTRODUCTION

The Elementary and Secondary Education Act (ESEA) of 1965 inaugurated a unique experiment in U.S. education that led to the establishment of a series of research and development (R&D) centers and regional laboratories around the country. This legislation created a new educational agent for which there was no prototype. Operating in the enthusiasm that attended the passage of ESEA, the U.S. Office of Education (USOE) hastened to the task of creating the laboratories and centers. Within the next two years, 20 regional laboratories sprang up, 11 R&D centers (some of which had been created earlier), and several other agencies as well. This operation was noteworthy not only for its scope and the speed with which it was mounted, but also for its unprecendented nature. This was institution-building with only the broadest of guidelines relative to the mission, the organization, or the operation of these novel educational agents.

It is probably too early for a definitive assessment of this chapter in the history of American education. However, a decade has passed, the laboratories and centers have undergone a number of significant changes, and some scrutiny of this R&D performer is appropriate. A full-scale examination of the laboratories and centers was beyond the scope of this project, so we selected one example for analysis--the Far West Laboratory (FWL). We chose FWL not because it is representative of all the laboratories and centers, but because it is one of the more successful both in the products and programs it has produced and in its ability to weather political and economic buffetings and because it was accessible to us. Studying this particular R&D performer allowed at least a cursory look at the fascinating process of institution-building, and provided insight into the factors contributing to this agent's success.

The raison d'être, as for all the case studies presented in this volume, is to test the power and utility of the analytic framework when applied to a concrete instance of knowledge production and utilization (KPU) in education. In this case, our focus of analysis is an agent, i.e., FWL, and our analysis is complex and configurational. More specifically, two questions guide this inquiry: What policies and policy shifts at the federal level have had what impacts on FWL policies, activities, and agents? To what extent and with what consequences are policy shifts at these two levels (federal and regional) symbiotic? The second query is primarily descriptive; we wish to describe the extent to which both the federal government and the Laboratory may initiate policy changes to which the other level responds.

Data collection proceeded along several lines. First, a review of the relevant literature provided hypotheses that guided inquiry.* Most of the primary source materials were obtained from FWL. Interviews with key agents at the Laboratory, especially the Director and the Associate Director in charge of administration, were particularly helpful. The FWL files contained various policies and procedures, correspondence with USOE and NIE, minutes of board meetings, various papers and memos, and the like. However, FWL was reorganizing, and because desks, filing cabinets, and personnel were being moved, it was not always possible to secure relevant documents (particularly the early correspondence with USOE). The consequence is an overreliance on interviews relative to the corroboration that documentation provides. Finally, the interaction between FWL and the federal government is basically viewed from the perspective of FWL, which is understandable in that the Laboratory is the focus of analysis. Nevertheless, the result is a bias in favor of FWL (in terms both of accuracy of information and of value judgments).

---

*A selected bibliography is appended to this case study.

Rather than include substantive details about all of FWL's programs and products, we focus here on one product, the Minicourse, as illustrative of other Laboratory outputs. Case Study V, which follows, focuses on Minicourse development in detail, so these two topics may be read in tandem. Finally, Case Study VI presents another example of curriculum development as a comparison with the Minicourse case. The reader may wish to keep in mind the focus across these three topics.

II CONCEPTUAL OVERVIEW

We framed our analysis of FWL in two ways. First, review of a portion of the relevant literature yielded substantive hypotheses that guided our inquiry. These ideas represent current thinking about regional laboratories and derive not from the analytic framework but from the observations and reflections of various analysts. Second, we introduced some distinction that help define and specify the application of the analytic framework to the questions generating this inquiry. Our strategy, then, was to take account of current thinking on the laboratories while providing a perspective determined by the analytic framework.

Review of recent literature on the educational R&D community revealed a number of leading ideas with respect to the regional laboratories. A series of related observations emerged as guiding hypotheses:

- From the passage of ESEA, a basic concern of federal agencies has been to define the purpose and role of the regional laboratory. Its functions, particularly in relation to other institutions within the field of education, have never been clearly determined. Moreover, its primary constituency has been open to question.
- A problem facing many laboratories is the difficulty of maintaining a staff of quality researchers and a "critical mass" of effort focused on a project. The latter problem is tied to the former, but also entails shifting policy at the federal level, upon which funding depends.
- In the decade of their existence, the laboratories have undergone abrupt changes in direction and shifts in the "locus of control." The most significant shift, with far-reaching consequences for laboratory operation, was the switch from institutional support to the so-called "program purchase" policy.
- The program purchase policy has led to the increasing politicization of the laboratories, to important shifts in

resource allocation within the laboratories, and to a search for diverse funding sources--now a major responsibility for key laboratory personnel.

As stated, our analysis focuses on the impact of federal policy shifts on FWL, and on the reciprocal process of policy change between these two levels of policymaking. We require, for this analysis, some means of identifying policies that define control over significant aspects of FWL operations. We propose four "realms of discretion," each of which identifies a major decision-making domain within which policies act as one source of regulation. These categories are not mutually exclusive but are a means for partitioning the decision space of the Laboratory so as to distinguish various policy shifts according to the aspect of laboratory operation affected. The four realms of discretion in our analysis are as follows:

- Fiscal--Regulating the flow of funds between educational knowledge production and utilization(EKPU) agents and the allocation of funds for EKPU activities. Policies in this realm include budget statements, contracts and grants, pay scales, and the like.
- Personnel--Regulating personnel primarily with respect to status, conditions, and benefits of employment. Specifically included are policies governing recruitment and hiring, compensation and benefits, advancement, employee relations, termination of employment, and the like.
- Procedural--Regulating the conduct of agents as they pursue the EKPU activities of management, research, development, linkage, and utilization. In this domain are all policies that directly govern the activities of agents as they carry out their work. Examples include quality control and review procedures, development sequences, and directives that establish steps to follow in carrying out a particular activity.
- Substantive--Regulating the initiation, development, and dispensation of EKPU products and programs. Emphasis falls not on the activities of agents but on the development of products and programs. Examples include directives specifying the projects to be carried out, recommendations, and results of reviews on proposals for projects.

In practice, a policy may include provisions that fall onto one or all of these categories. For example, the procedural-substantive distinction is not entirely clear, but roughly corresponds to the difference between the way an activity is to be carried out, and a specification of that activity and its result. With these hypotheses and these distinctions in mind, we may proceed to the analysis of FWL.

III .REPORT OF FINDINGS

This analysis considers the history of FWL in three stages. From 1965 through part of 1966 was the formative period, during which early plans for a regional laboratory culminated in the award of funds to establish FWL on a regularly operating basis. From 1966 to 1972, FWL flourished. These were the institution-building years; Laboratory management inaugurated programs, elaborated an organization, established operating procedures, and expanded the scope of activity. Guaranteed financial support that was increasing yearly provided the context within which this development took place. Since 1972, FWL has undergone a series of major changes, touched off by transfer from institutional support to program purchase and by transfer of Laboratory and center monitoring from USOE to NIE. Over the past three years, major changes have occurred in staff, organization, programs, goals, and management practices. Although there are lines of continuity from the Laboratory's inception to the present, we have been impressed with the sharpness of the break in 1972. It appears that FWL is in a new era and is no longer functioning as it did in its early years.

1965-66: Origins of Far West Laboratory

FWL was established in 1965 under Title IV of ESEA[1*] (an amendment to the Cooperative Research Act of 1954). The negotiations setting up the Laboratory were notable for the relative lack of federal regulation.

---

[*] Policies mentioned in the text are numbered and keyed to the taxonomy in Annex A, which presents pertinent information on each formal policy mentioned.

A single four-page document entitled "Guidelines for a National Program of Educational Laboratories"[2] was the sole policy governing the initial plan for a regional laboratory, and provided only the most general guidelines. Mindful that a group of educators in Southern California had been quick to submit a prospectus (for what was to become the Southwest Regional Educational Laboratory), several groups in Northern California began planning for a laboratory in the San Francisco area. Eventually these educators submitted a prospectus[3] for a laboratory to serve Northern California and most of Nevada (later Utah was to join). To establish themselves as a legal entity, the participating institutions in California and Nevada formed a Joint Powers Agreement[4] that set up a Board of Directors as the principal policymaking body. This document continues to be a foundation policy statement for FWL, providing authority for numerous procedural policies.

The USOE accepted the prospectus and provided an initial planning grant[5] to allow development of a comprehensive plan for an educational laboratory. Working quickly under the leadership of Dr. Robert Gagné, Acting Director, a small staff prepared a plan for FWL that was submitted as a progress report[6] to USOE in March 1966. Following the guidelines sent out by USOE, the interim staff based their program recommendations on a series of need assessments[7] conducted in the region to be served by the laboratory. In this work the staff was assisted by an Executive Panel[8] of leading educators in the area who served as consultants in the deliberations of programs and projects to sponsor. This group continued to play a critical role in project selection and review until 1974, when it was disbanded. Upon acceptance of the progress report, FWL was officially established.

1966-72: Establishment and Growth of Far West Laboratory

Over the next six years, FWL established an excellent reputation in educational product development, growing rapidly from 29 employees in 1966 to 247 by 1970, with USOE support increasing from $458,000 in 1966 to $2,570,000 in 1972. The four realms of discretion organize an account of these years, and Table IV-1 provided a graphic portrayal of policy impacts.

Procedural Policies

Figure IV-1 displays the initial organization of FWL. As stipulated by the Joint Powers Agreement, the Board of Directors was the chief policy-setting agent and the ultimate seat of authority. In addition to establishing policy by resolution, the board reviewed all major decisions at the laboratory regarding budget, program development, product release, staff hiring, and the like. Of the two other agents in upper management, the Executive Panel was significant in affecting operational decisions, while the Advisory Commission provided long-range trend spotting and goal setting. Until its phaseout in 1974, the Executive Panel selected and reviewed all Laboratory products and programs.

The Laboratory Director was the Chief source of policy initiative at FWL, with broad discretionary powers over policies affecting personnel, operating procedures, financial arrangements, programs, and the like. Within each program division, however, the division head had authority to develop that area's programs. In the Teacher Education Program, for instance, Walter Borg was responsible for creating and implementing the developmental sequence used to produce the Minicourses. The FWL Manual of Procedures included policies regulating the actions of program heads, but none that specified how they were to carry out their work. Further elaboration of FWL structure would require a detailed account of Laboratory programs and projects as these developed and changed through time.

Table IV-1

POLICY IMPACTS ON THE FOUR REALMS OF DISCRETION

FY 1965

	Fiscal	Procedural	Substantive	Personnel
Federal	ESEA Title IV Planning Grant	ESEA Title IV Guidelines for Educational Laboratories		Civil Rights Act, Title VII Executive Order 11246
FWL Management		Prospectus Joint Powers Agreement	Needs Assessment Executive Panel Review: recommendations for programs	Joint Powers Agreement
PI:* Minicourses				

FY 1966

	Fiscal	Procedural	Substantive	Personnel
Federal	USOE funding delay USOE Basic Contract		USOE request to focus programs	Office of Contracts Compliance, Employee Guidelines
FWL Management	Progress report	Progress report Rules for conduct	Executive Panel recommendations for priority programs	
PI:* Minicourses			Proposed programs	

FY 1967

	Fiscal	Procedural	Substantive	Personnel
Federal	USOE Basic Contract Funding Guidelines			
FWL Management	Board of Directors' Reviews Director's quarterly review Proposed laboratory budget		Executive Panel review of Minicourse topics Director review Board review	
PI:* Minicourses	Initial program plan	Develop sequence for Minicourses	Program director review of Minicourse topics	

*Principal investigator.

Table IV-1 (Continued

FY 1968

	Fiscal	Procedural	Substantive	Personnel
Federal	OEO grants, and the like USOE rating of FWL USOE construction grant	USOE amendments to copyright law	USOE emphasis on product development	
FWL Management	Proposals for funding construction proposal	Request for change in copyright law		
PI:* Minicourses		Request for copyright protection		

FY 1969

Federal				EEO Guidelines
FWL Management	Manual of Procedures Accounting Budgets Contracts	Manual of Procedures Program Manual Management Manual Proposal review Development review Transfer to utilization Request copyright	Manual of Procedures Program Manual	Manual of Procedures Personnel Manual
PI:* Minicourses				

FY 1970

Federal		USOE amendments to copyright law		
FWL Management		Request for change in copyright law		
PI:* Minicourses		Request for copyright protection		

---

*Principal investigator.

Table IV-1 (Continued)

	Fiscal	Procedural	Substantive	Personnel
FY 1971				
Federal				
FWL Management				
PI:* Minicourses				
FY-1972				
Federal	NIE rating of FWL as financially independent Fee guidelines Federal procurement regulations		Task Force Master Panel recommendations; no addenda Special panel recommendations and classifications Director's recommendations on utilization	EEO Guidelines
FWL Management	Fee proposal contracts		Laboratory appeals on class	Affirmative Action Plan
PI:* Minicourses			Revised program plans addenda to plans	
FY 1973				
Federal	Contracts with NIE, OEO, and others		Contracts with NIE, OEO, and others	EEO guideline changes
FWL Management	Proposals Fixed-term employee contracts		Proposals Emphasis on service	One-month notice of release Affirmative Action Plan
PI:* Minicourses	Employee salary, benefits, and the like			Staff termination

*Principal investigator.

Table IV-1 (Concluded)

FY 1974

	Fiscal	Procedural	Substantive	Personnel
Federal	Contracts, with NIE, OEO, and others		Contracts with NIE, OEO, and others	
FWL Management	Proposals	Management directives and operating procedures (initial version)	Proposals	
PI:* Minicourses				

FY 1975

	Fiscal	Procedural	Substantive	Personnel
Federal	NIE reduction in funding			Redefinition of FWL employment area
FWL Management		Reorganization of management structure: Board resolution on 25% time to ALD Council	Reducing scope of work in Minicourse research program	Affirmative Action Plan Appeal on H.R.C. ruling
PI:* Minicourses		Principal investigators submit contracts to administration for scrutiny		

Notes: (1) "Federal" refers to several agencies: Congress, USOE, NIE, OEO, and private funding agencies.

(2) "FWL Management" refers to several agents within the Laboratory: Director, Executive Panel, Board of Directors, and ad hoc review panels.

(3) Each policy is listed in the year that it first appeared; many of these policies continue in effect (e.g., the process for negotiating the Laboratory budget each year).

*Principal investigator.

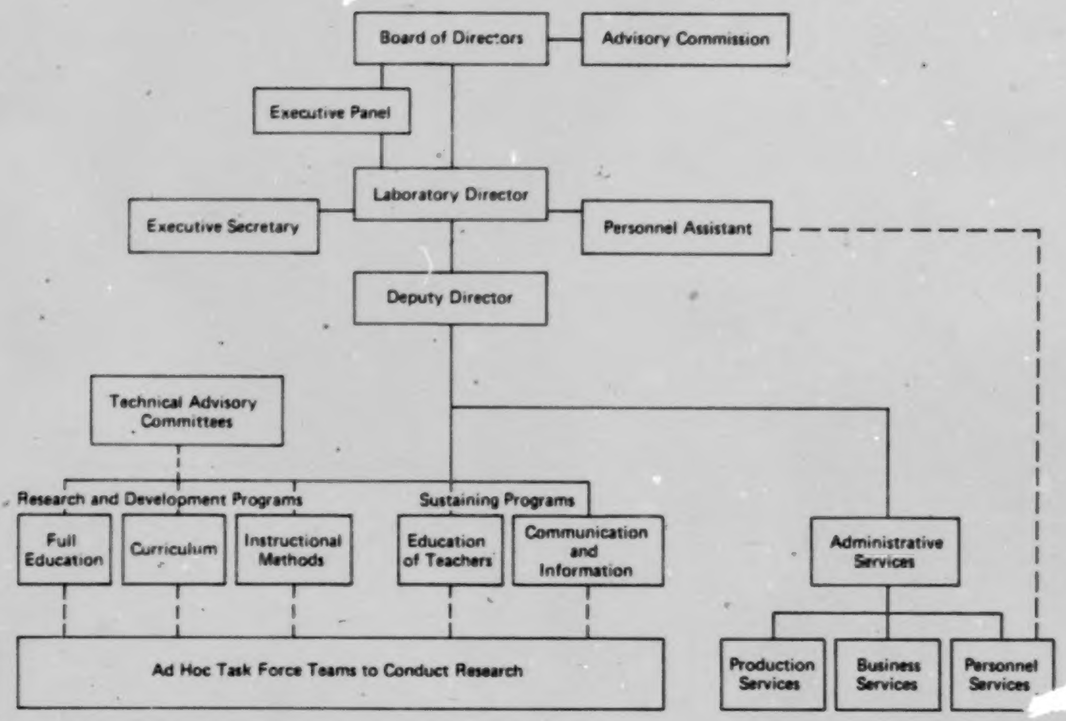

Board of Directors
Advisory Commission
Executive Panel
Laboratory Director
Executive Secretary
Personnel Assistant
Deputy Director
Technical Advisory Committees
Research and Development Programs
Sustaining Programs
Full Education
Curriculum
Instructional Methods
Education of Teachers
Communication and Information
Administrative Services
Ad Hoc Task Force Teams to Conduct Research
Production Services
Business Services
Personnel Services

FIGURE IV-1 ORGANIZATION OF FAR WEST LABORATORY: 1965

Our analysis does not include this level of detail, however, and so we will use the Teacher Education Program as illustrative of policy impacts on the researcher.

Between 1966 and 1972, Laboratory policy grew apace with the expansion and increasing complexity of Laboratory operations. There were essentially two levels of policy. At the highest level, FWL policies included the Joint Powers Agreement, the Rules for the Conduct of Business,[9] and the collected resolutions and recommendations of the Board of Directors.[10] The interpretation and translation of these general statements, however, required more detailed operating procedures. Over several years, this second level of policy was elaborated, frequently revised, and ultimately codified in the three-volume Manual of Procedures,[11] most sections of which date from 1969.

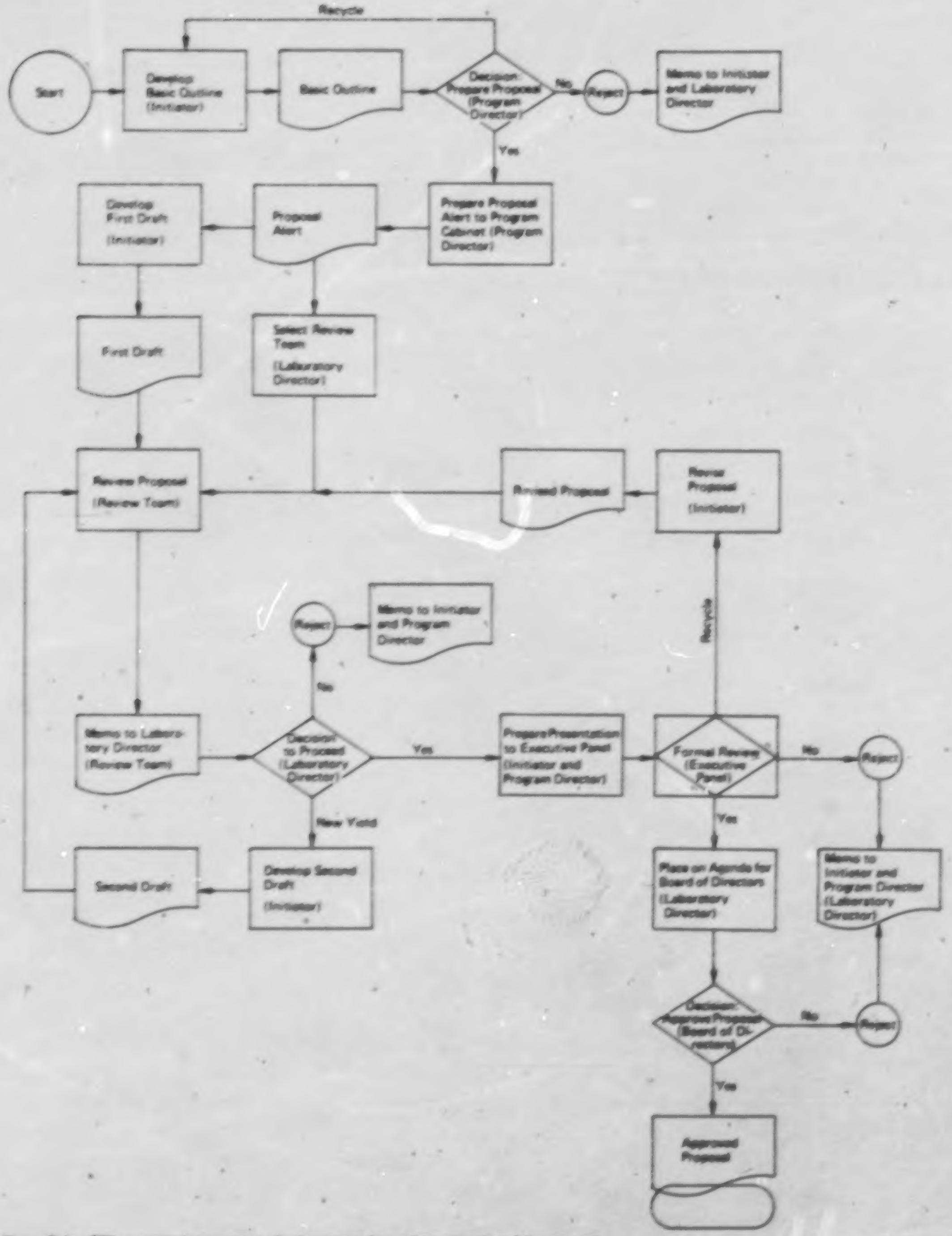
Whereas the superordinate authority for policies in the Manual of Procedures may be traced to either the Joint Powers Agreement, the Rules for Conduct, or the Board of Directors, the Manual contains the detailed explication of policy with which Laboratory personnel must comply. We will deal with the relevant sections of the Manual under each of the realms of discretion. Of principal interest is the Program Manual section, which provides the principal policies regulating the conduct of researchers; we shall present these policies in some detail.

The conduct of R&D at FWL was regulated by a process of review and revision at several key points:

- Submitting a proposal for a product or program.[12]
- Developing the product to the point where it could be released.[13]
- Transferring the product from a developmental program to a general dissemination program.[14]
- Requesting developmental or limited copyrights.[15]

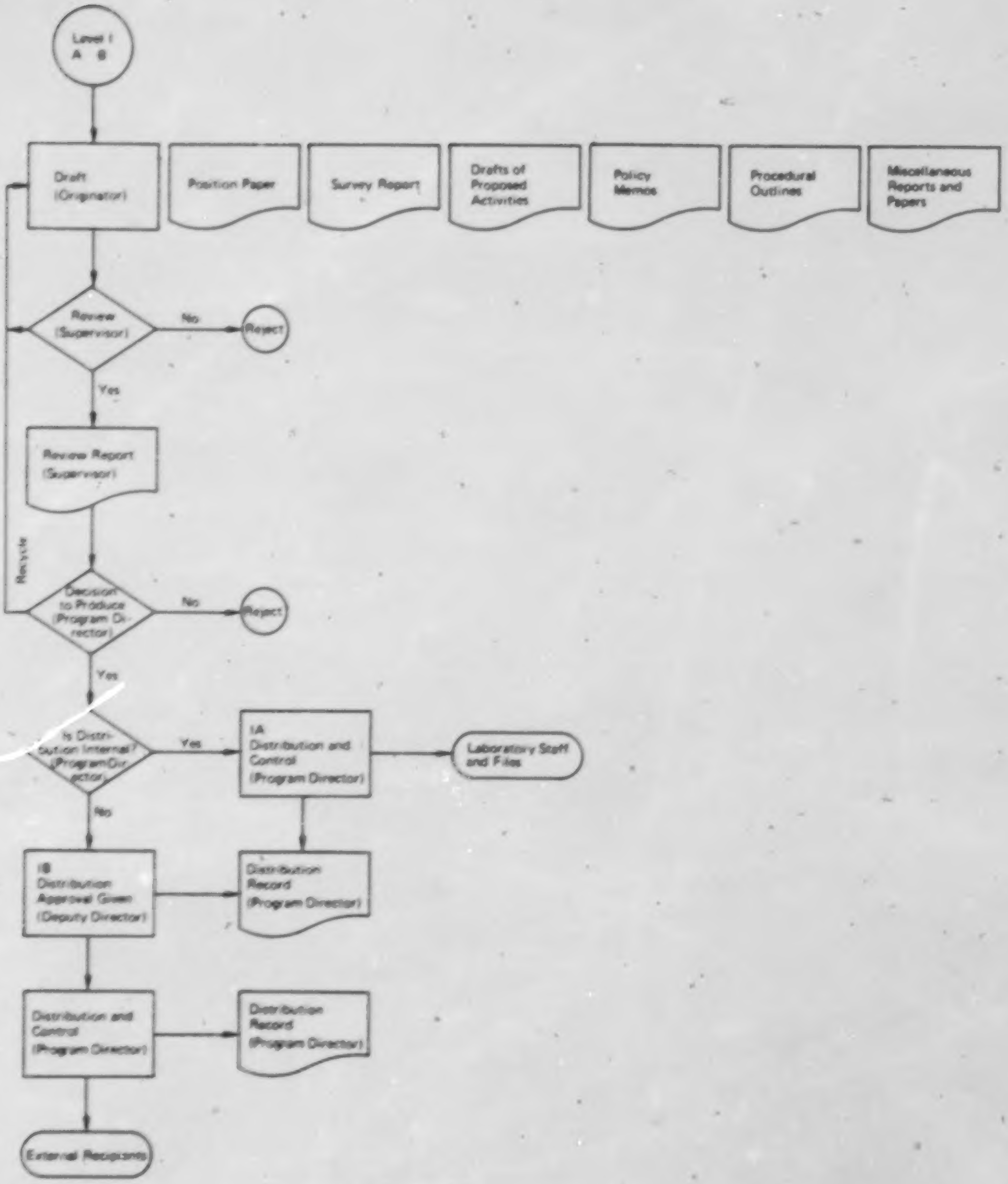
At various points in each of these R&D stages, the Manual called for elaborate review by the program director, an ad hoc review team of Laboratory personnel, the Laboratory Director, the Executive Panel, and the Board of Directors. Figures IV-2 through IV-8 detail each of these four review sequences, accompanied by explanatory notes. Examination of these flowcharts suggests several observations:

- The Laboratory Director was a crucial agent in each of these sequences, reviewing products at the proposal, developmental, and dissemination stages. Lines of authority converged on him at numerous points, and while program directors had autonomy in planning and carrying out R&D, the results of their efforts were repeatedly subject to scrutiny. Most significantly, no FWL product was released to the public without the Laboratory Director's approval.
- The Executive Panel also had a critical role in the review and development process, although in some cases at the Laboratory Director's discretion (see Figure IV-5). Its primary


Recycle
Start
Develop Basic Outline (Initiator)
Basic Outline
Decision: Prepare Proposal (Program Director)
No
Reject
Memo to Initiator and Laboratory Director
Yes
Prepare Proposal Alert to Program Cabinet (Program Director)
Proposal Alert
Develop First Draft (Initiator)
First Draft
Select Review Team (Laboratory Director)
Review Proposal (Review Team)
Revised Proposal
Revise Proposal (Initiator)
Recycle
Reject
Memo to Initiator and Program Director
No
Memo to Laboratory Director (Review Team)
Decision to Proceed (Laboratory Director)
Yes
Prepare Presentation to Executive Panel (Initiator and Program Director)
Formal Review (Executive Panel)
No
Reject
New Yield
Yes
Second Draft
Develop Second Draft (Initiator)
Place on Agenda for Board of Directors (Laboratory Director)
Memo to Initiator and Program Director (Laboratory Director)
Decision: Approve Proposal (Board of Directors)
No
Reject
Yes
Approved Proposal

Note: Before FWL committed resources to a development project, a thorough review of the proposed project was conducted by the program director, Director, review team, Executive Panel, and Board of Directors.

FIGURE IV-2 PROPOSAL REVIEW


Level I A B
Draft (Originator)
Position Paper
Survey Report
Drafts of Proposed Activities
Policy Memos
Procedural Outlines
Miscellaneous Reports and Papers
Review (Supervisor)
No
Reject
Yes
Review Report (Supervisor)
Recycle
Decision to Produce (Program Director)
No
Reject
Yes
Is Distribution Internal? (Program Director)
Yes
IA Distribution and Control (Program Director)
Laboratory Staff and Files
No
IB Distribution Approval Given (Deputy Director)
Distribution Record (Program Director)
Distribution and Control (Program Director)
Distribution Record (Program Director)
External Recipients

Note: The policies regulating product development covered four cases: papers for internal consumption (Level I), papers for release and distribution to outside audiences (Level II), official Laboratory materials in print (Level III), and official Laboratory materials, nonprint media (Level IV). For Level III and IV products, in addition to the full complement of reviews, were requirements for field testing, where appropriate, and collection of performance data to determine the products' effectiveness "in the field."

FIGURE IV-3 STEPS FOR DEVELOPING A LABORATORY PRODUCT: LEVELS IA AND IB

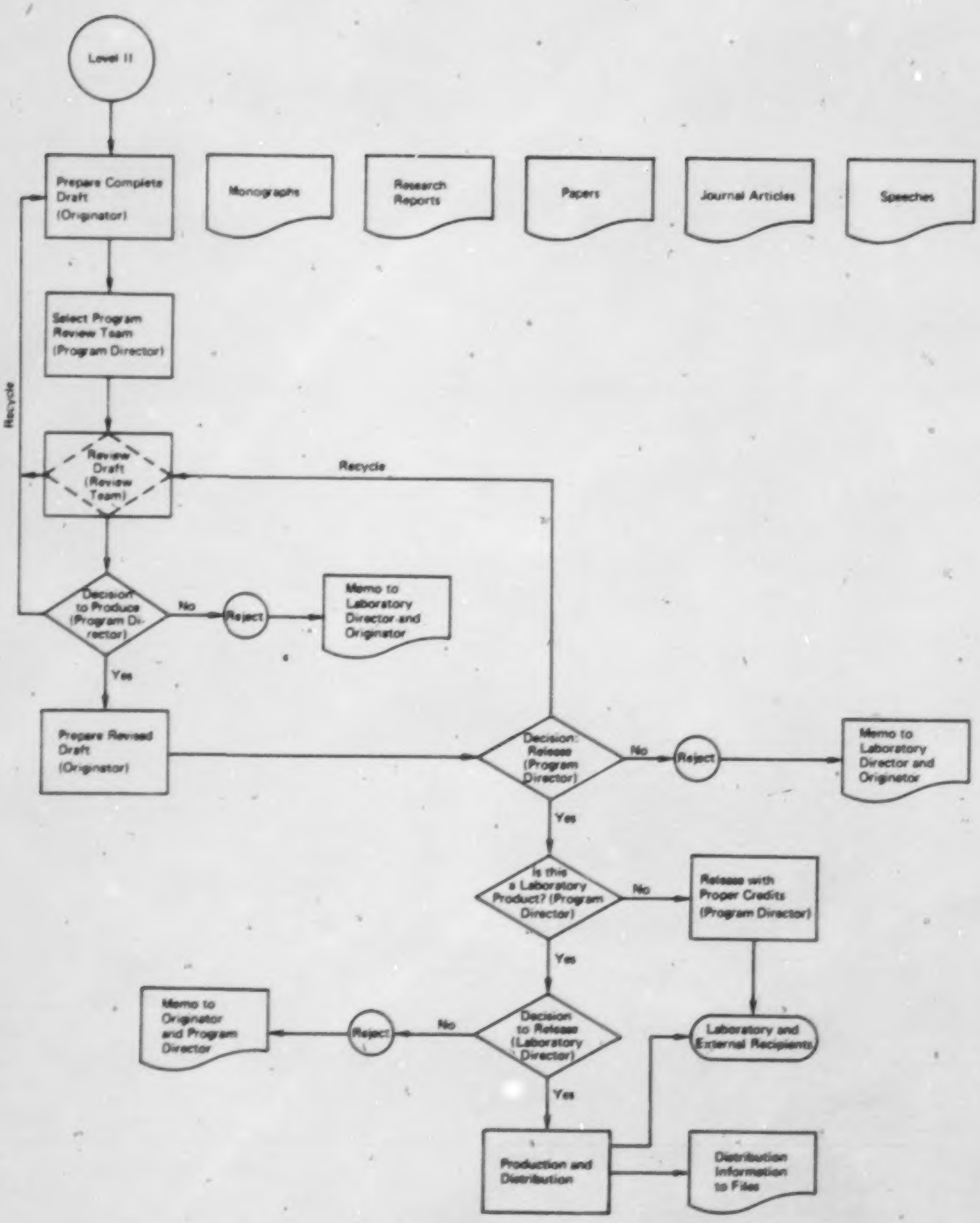

Level II
Prepare Complete Draft (Originator)
Monographs
Research Reports
Papers
Journal Articles
Speeches
Select Program Review Team (Program Director)
Recycle
Review Draft (Review Team)
Recycle
Decision to Produce (Program Director)
No
Reject
Memo to Laboratory Director and Originator
Yes
Prepare Revised Draft (Originator)
Decision: Release (Program Director)
No
Reject
Memo to Laboratory Director and Originator
Yes
Is this a Laboratory Product? (Program Director)
No
Release with Proper Credits (Program Director)
Yes
Memo to Originator and Program Director
Reject
No
Decision to Release (Laboratory Director)
Laboratory and External Recipients
Yes
Production and Distribution
Distribution Information to Files

FIGURE IV-4 STEPS FOR DEVELOPING A LABORATORY PRODUCT: LEVEL II

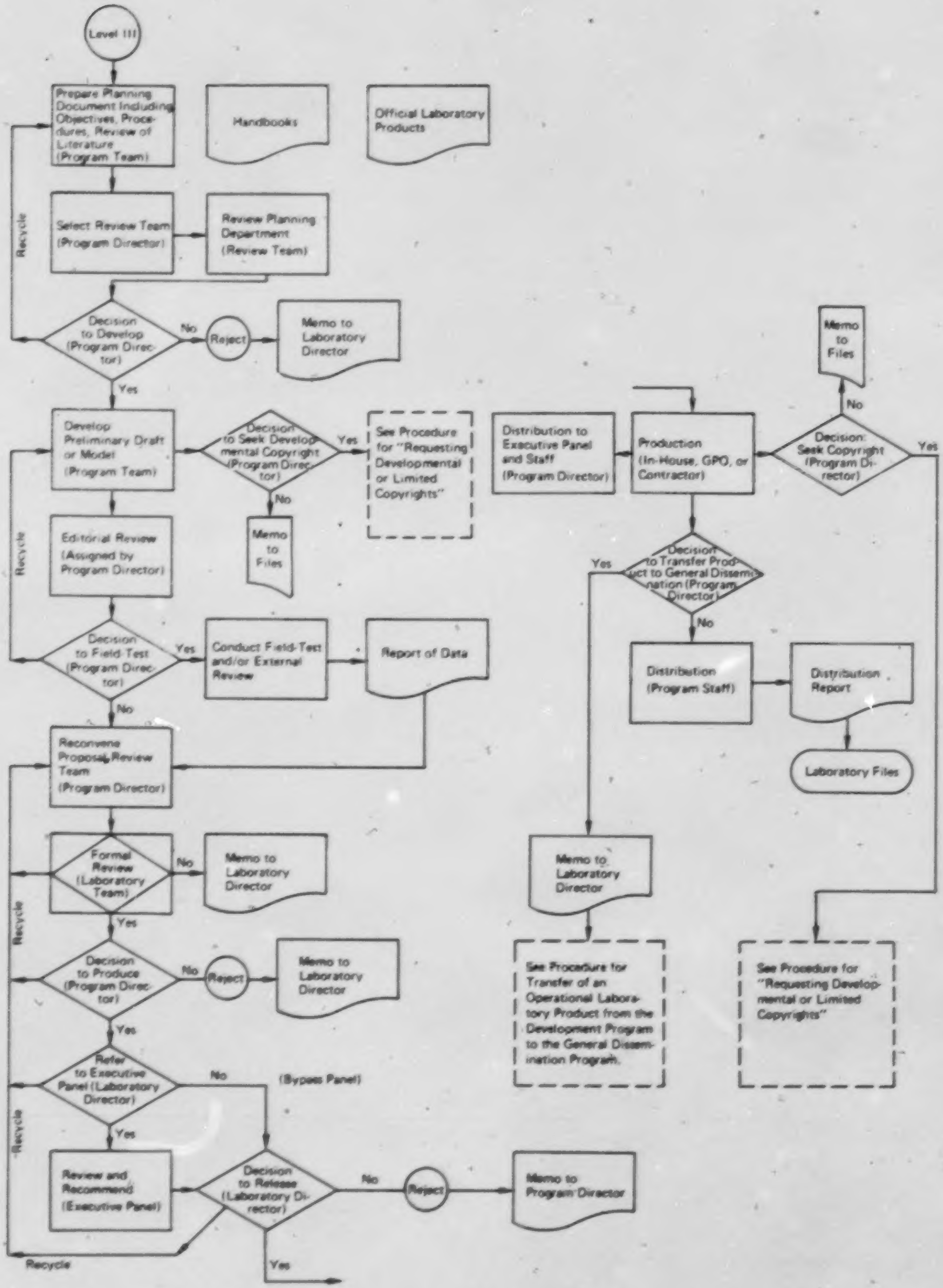

Level III
Prepare Planning Document Including Objectives, Procedures, Review of Literature (Program Team)
Handbooks
Official Laboratory Products
Select Review Team (Program Director)
Review Planning Department (Review Team)
Recycle
Decision to Develop (Program Director)
No
Reject
Memo to Laboratory Director
Yes
Develop Preliminary Draft or Model (Program Team)
Decision to Seek Developmental Copyright (Program Director)
Yes
See Procedure for "Requesting Developmental or Limited Copyrights"
No
Memo to Files
Recycle
Editorial Review (Assigned by Program Director)
Decision to Field-Test (Program Director)
Yes
Conduct Field-Test and/or External Review
Report of Data
No
Reconvene Proposal Review Team (Program Director)
Formal Review (Laboratory Team)
No
Memo to Laboratory Director
Recycle
Yes
Decision to Produce (Program Director)
No
Reject
Memo to Laboratory Director
Yes
Refer to Executive Panel (Laboratory Director)
No
(Bypass Panel)
Recycle
Yes
Review and Recommend (Executive Panel)
Decision to Release (Laboratory Director)
No
Reject
Memo to Program Director
Recycle
Yes
Distribution to Executive Panel and Staff (Program Director)
Production (In-House, GPO, or Contractor)
Decision: Seek Copyright (Program Director)
No
Memo to Files
Yes
Decision to Transfer Product to General Dissemination (Program Director)
Yes
No
Distribution (Program Staff)
Distribution Report
Laboratory Files
Memo to Laboratory Director
See Procedure for Transfer of an Operational Laboratory Product from the Development Program to the General Dissemination Program.
See Procedure for "Requesting Developmental or Limited Copyrights"

FIGURE IV-5 STEPS FOR DEVELOPING A LABORATORY PRODUCT: LEVEL III

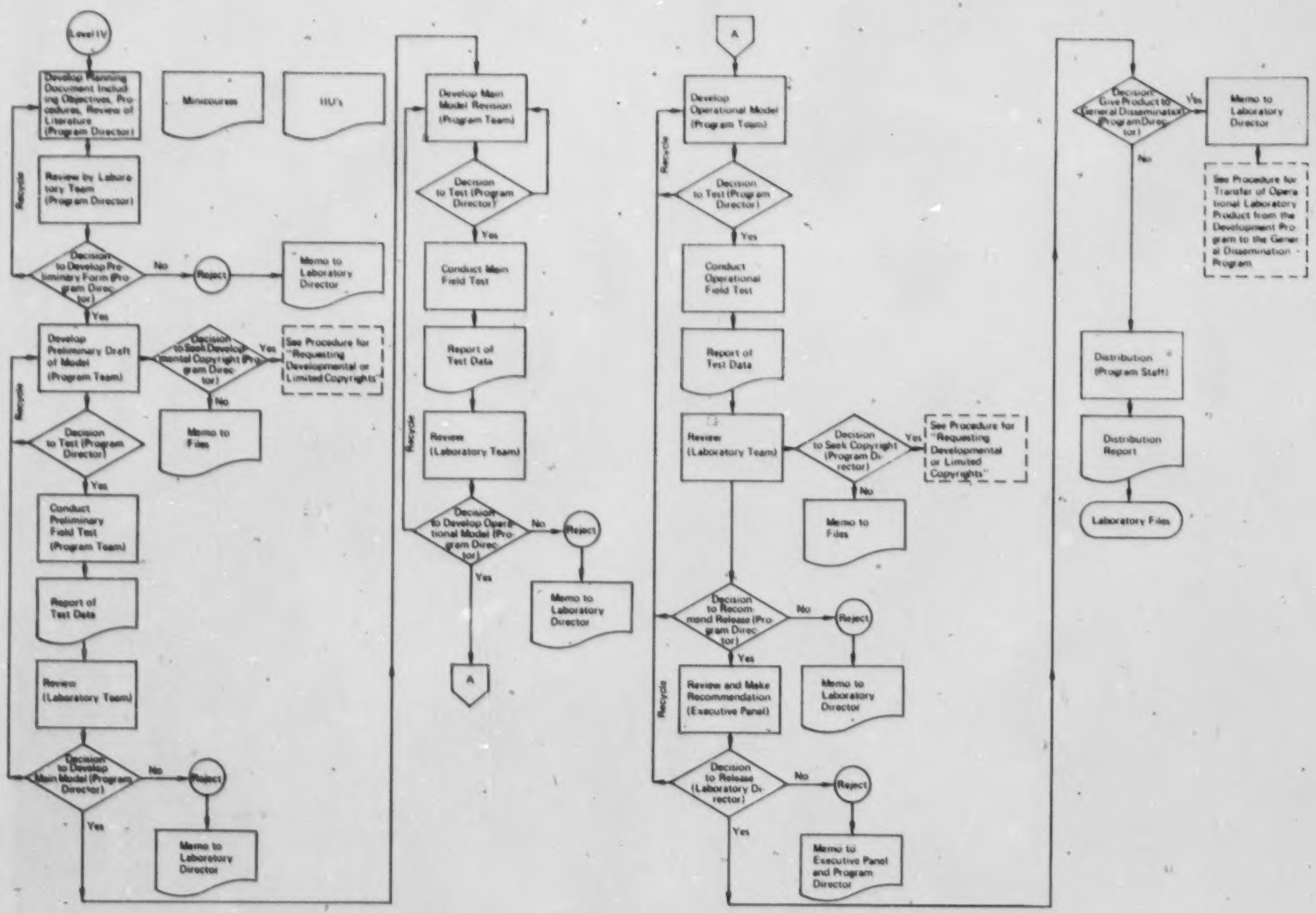
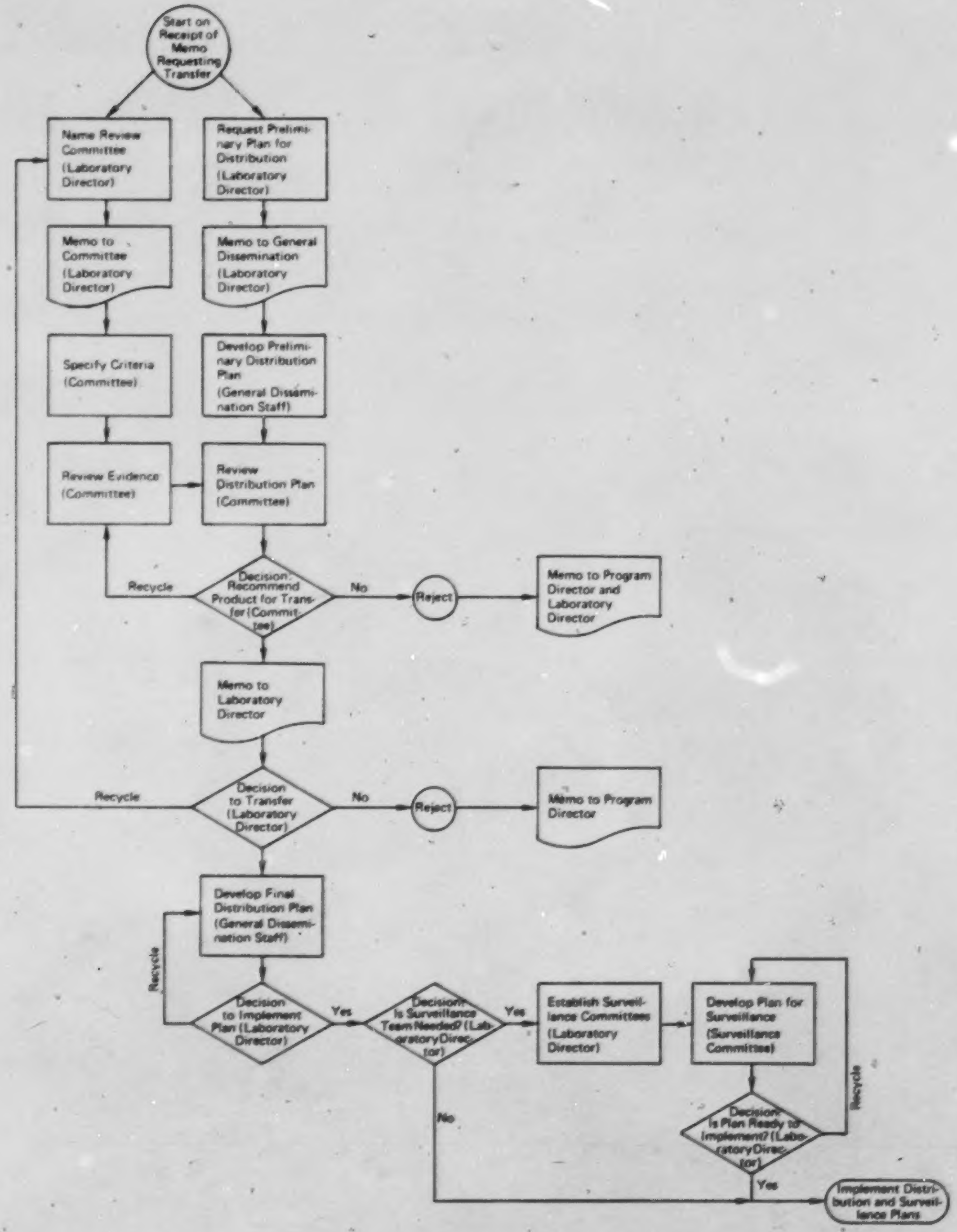

Level IV
Develop Planning Document Including Objectives, Procedures, Review of Literature (Program Director)
Minicourses
IIU's
Review by Laboratory Team (Program Director)
Decision to Develop Preliminary Form (Program Director)
No
Reject
Memo to Laboratory Director
Yes
Recycle
Develop Preliminary Draft of Model (Program Team)
Decision to Seek Developmental Copyright (Program Director)
Yes
See Procedure for "Requesting Developmental or Limited Copyrights"
No
Memo to Files
Recycle
Decision to Test (Program Director)
Yes
Conduct Preliminary Field Test (Program Team)
Report of Test Data
Review (Laboratory Team)
Decision to Develop Main Model (Program Director)
No
Reject
Memo to Laboratory Director
Yes
Develop Main Model Revision (Program Team)
Decision to Test (Program Director)
Yes
Conduct Main Field Test
Report of Test Data
Review (Laboratory Team)
Recycle
Decision to Develop Operational Model (Program Director)
No
Reject
Memo to Laboratory Director
Yes
A
A
Develop Operational Model (Program Team)
Recycle
Decision to Test (Program Director)
Yes
Conduct Operational Field Test
Report of Test Data
Review (Laboratory Team)
Decision to Seek Copyright (Program Director)
Yes
See Procedure for "Requesting Developmental or Limited Copyrights"
No
Memo to Files
Decision to Recommend Release (Program Director)
No
Reject
Memo to Laboratory Director
Yes
Review and Make Recommendation (Executive Panel)
Recycle
Decision to Release (Laboratory Director)
No
Reject
Memo to Executive Panel and Program Director
Yes
Decision Give Product to General Disseminator (Program Director)
Yes
Memo to Laboratory Director
See Procedure for Transfer of Operational Laboratory Product from the Development Program to the General Dissemination Program
No
Distribution (Program Staff)
Distribution Report
Laboratory Files

FIGURE IV-6 STEPS FOR DEVELOPING A LABORATORY PRODUCT: LEVEL IV


Start on Receipt of Memo Requesting Transfer
Name Review Committee (Laboratory Director)
Request Preliminary Plan for Distribution (Laboratory Director)
Memo to Committee (Laboratory Director)
Memo to General Dissemination (Laboratory Director)
Specify Criteria (Committee)
Develop Preliminary Distribution Plan (General Dissemination Staff)
Review Evidence (Committee)
Review Distribution Plan (Committee)
Recycle
Decision: Recommend Product for Transfer (Committee)
No
Reject
Memo to Program Director and Laboratory Director
Memo to Laboratory Director
Recycle
Decision to Transfer (Laboratory Director)
No
Reject
Memo to Program Director
Develop Final Distribution Plan (General Dissemination Staff)
Recycle
Decision to Implement Plan (Laboratory Director)
Yes
Decision: Is Surveillance Team Needed? (Laboratory Director)
Yes
Establish Surveillance Committees (Laboratory Director)
Develop Plan for Surveillance (Surveillance Committee)
Recycle
No
Decision: Is Plan Ready to Implement? (Laboratory Director)
Yes
Implement Distribution and Surveillance Plans

Note: Responsibility for dissemination of Laboratory products rested with a single division rather than with the product development teams, a more efficient way to handle dissemination.

FIGURE IV-7 STEPS FOR TRANSFERRING A LABORATORY PRODUCT FROM DEVELOPMENTAL PROGRAM TO GENERAL DISSEMINATION PROGRAM

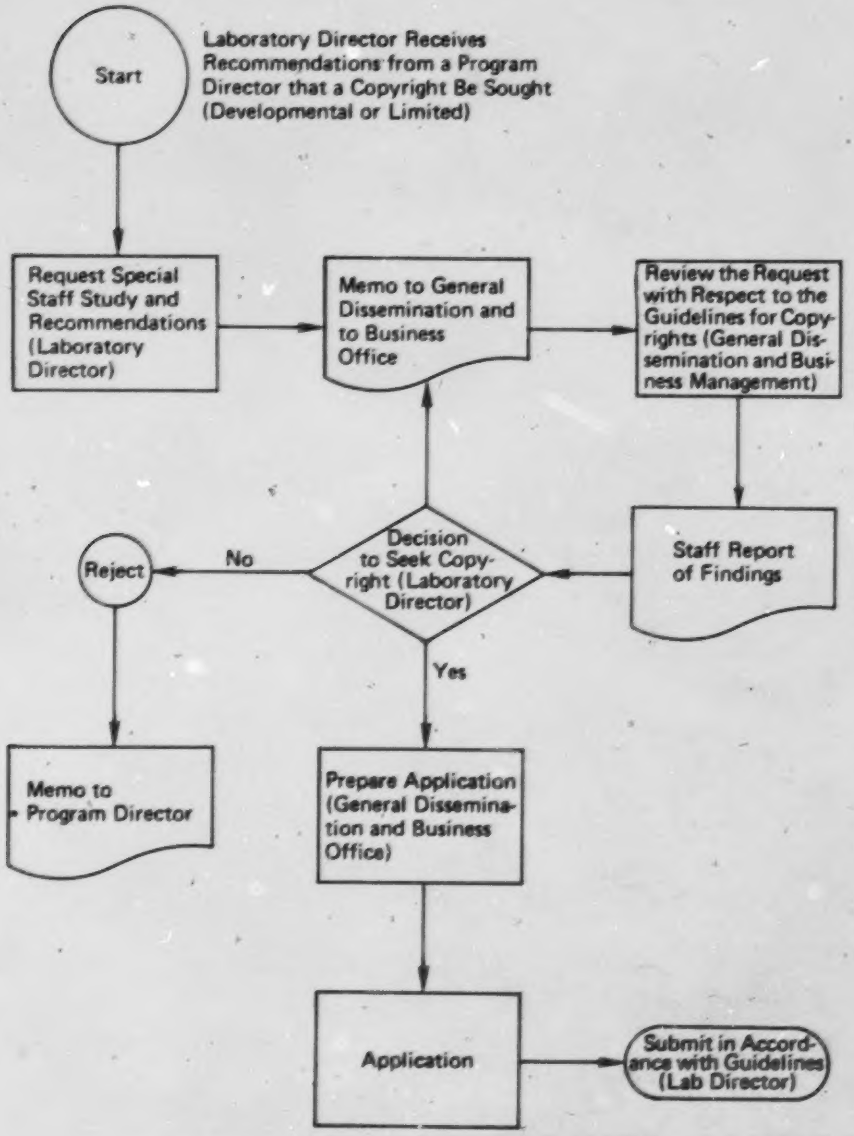

Start
Laboratory Director Receives Recommendations from a Program Director that a Copyright Be Sought (Developmental or Limited)
Request Special Staff Study and Recommendations (Laboratory Director)
Memo to General Dissemination and to Business Office
Review the Request with Respect to the Guidelines for Copyrights (General Dissemination and Business Management)
Staff Report of Findings
Decision to Seek Copyright (Laboratory Director)
No
Reject
Memo to Program Director
Yes
Prepare Application (General Dissemination and Business Office)
Application
Submit in Accordance with Guidelines (Lab Director)

FIGURE IV-8 STEPS FOR REQUESTING DEVELOPMENTAL OR LIMITED COPYRIGHTS

function was to advise in the selection of programs and products for the Laboratory to develop.

- The copyright sequence was a chief instance of the Laboratory's influence on the Office of Education. It was at the behest of FWL and some of the other laboratories that USOE provided developmental and limited copyright coverage for laboratory products through amendments in 1968 and 1970 to copyright policy.

The procedural constraints on the research are evident in Figures IV-2 through IV-8. A policy analysis of any single Laboratory product would reveal the policy decisions taken at each of the various decision points shown in these figures. For example, a number of the Minicourses were killed at the proposal stage, and others on the basis of poor field-test data (see Case Study V for further details). Laboratory-wide quality control procedures, then, were a significant regulator of R&D activity at FWL.

Fiscal Policies

From 1966 to 1972, FWL received its funding through a basic contract[16] negotiated yearly with USOE. The Budgeting section of the Manual of Procedures specified the following budget-making sequence:

- Each program director developed a program plan[17] that provided a detailed breakdown of proposed activities, with budget estimates and rationale.
- The business manager translated these plans into the format[18] required by the "Guidelines for the Preparation of the Contractor's Request for Continual Funding."
- These program plans were assembled into a Laboratory budget[19] and sent to the Board of Directors for approval.
- This budget became the basis for negotiations with USOE.
- Upon successful completion of negotiations, the revised budget[20] was presented to the Board of Directors for final approval.
- The Laboratory Director conducted quarterly reviews of the budget.[21]

Policies associated with this budget cycle were the primary fiscal constraints on the Laboratory. Each year the basic program plans developed by the program directors established the broad outlines of work for the succeeding year. USOE exercised fiscal authority during the negotiation process, but, as noted, funding for the Laboratory rose steadily during these years, and there were no major USOE interventions to redirect allocations or to reduce significantly the amounts requested. FWL funding came primarily from the basic contract with USOE, but there were other contracts as well during these years. For instance, the Early Childhood Program received funds from the Office of Economic Opportunity (OEO), the Carnegie Corporation,[22] and others. These various contracts, of course, also acted as significant fiscal policies regulating the work specified therein.

Substantive Policies

Laboratory policies best characterized as substantive were the program and project reviews and recommendations of the Executive Panel, the Board of Directors, the Laboratory Director, and the program directors. As indicated earlier, the Executive Panel played a major role in selecting the initial programs for the Laboratory, basing its decisions in part on need assessments of the region served. Under the quality control procedures detailed in Figures IV-2 through IV-8, all further proposals for projects and all works-in-progress were subject to close scrutiny. The results of these reviews were the primary policy decisions governing FWL operation. It proved beyond the scope of this analysis to provide a detailed account of these policy decisions for each of the Laboratory's programs, but we may illustrate the operation and consequences of these reviews with the Minicourse program. Of 24 Minicourses, 9 were terminated by FWL (5 in the proposal stage and 4 at various stages of testing). This indicates that the review process was a significant policy regulator of Laboratory projects and products.

A second source of substantive policy was USOE, which conducted a number of reviews of FWL between 1966 and 1972. In addition, program monitors reported regularly on specific Laboratory programs. The recommendations of these review committees and monitors were potentially important as substantive policy regulators, but our research indicates that they had a relatively negligible influence. Sometimes, however, the recommendations were helpful, and occasionally the reviewers were used almost as consultants by the Laboratory. In one instance, a media specialist reviewing the development of Minicourses provided such invaluable advice on the technical equipment for the production of the Minicourse kit that he was called in as a consultant. When reviewers were competent, and knowledgeable about the program under scrutiny, their criticisms were constructive and were heeded by Laboratory personnel; when reviewers were not competent to judge Laboratory activities, their reports made little difference. Apparently, evaluations by these review committees did not formally influence USOE policy, and the impact, if any, on FWL operations was informal and direct.

During these years, however, policy shifts at the federal level influenced the operation of the laboratories. FWL was one of the Laboratories least influenced and, whether by good planning or circumstance, managed to operate effectively. The chief policy shifts and their impact on the Laboratory included the following:

- In 1966, USOE imposed a three-month moratorium[23] on funding while Dr. Francis Chase conducted a review of Laboratory activities. As a result, USOE directed the laboratories to focus their program efforts on making significant and immediate progress. FWL responded with an intensive two-month planning session that resulted in the proposal of six programs.[24] The Executive Panel chose teacher education and communication as top priorities.
- In 1968, Dr. Norman Boyan, newly appointed Associate Commissioner of Research at USOE, signaled a change in emphasis for the laboratories. To justify budget increases he had

requested and to meet criticisms of the laboratories from within government, he stressed product development as the top priority.[25] Because FWL was already substantially engaged in such work, this shift had little impact on its programs, but the impact of this policy change on many other laboratories is said to have been large.

- With the advent of the Nixon administration in 1969, criticism of laboratories and centers increased and culminated in a policy to decide which laboratories were effective enough to be maintained, and which should be closed. Site reviews were used for judgments on laboratory performance, and in 1969 five laboratories were closed, followed by four more in 1971. Again, FWL remained unaffected because they were judged too strong even for a review.

In spite of substantial federal policy shifts relative to laboratories during these years, stimulated by changes in administration and by growing criticism of the rising expenditures for the laboratories, FWL was not significantly influenced. The reasons are not easy to determine. Included among the possibilities are that:

- FWL had a particularly good track record.
- Astute management practices at FWL were a major factor.
- Key agents at the Laboratory exhibited political savvy in gaining influence with pivotal agents at the federal level.
- By simple good luck, FWL management decisions accorded well with the imperatives of federal policymaking.

A study emphasizing formal policy regulators does not provide the opportunity to weigh these possibilities, but after completing this account of Laboratory operations we may speculate briefly on this question.

Personnel Policies

The Personnel Manual,[26] chief source of policy regulating FWL staff, rested on the relevant sections of the Joint Powers Agreement, the Rules for Conduct, Board of Directors' resolutions, and federal employment policies. Its chief sections covered recruitment and hiring, compensation and benefits, staff advancement, professional activities, termination of employment, and employee relations. A detailed listing of these procedures is not necessary, but personnel policies were significant because they affected the recruitment and maintenance of a top-flight staff, one of the crucial responsibilities for an R&D manager. According to the Director, FWL was fortunate in attracting and holding quality researchers, which he attributed to the appeal of the San Francisco Bay Area. In addition, however, he cited a generous pay scale and fringe benefits, and favorable opportunities for advancement as reasons for FWL's success in maintaining a good staff. How these policies affected the quality of R&D at FWL is difficult to determine. The principal investigator on a research project is always a key element in the quality of the work, so that personnel policies and work conditions attracting good researchers presumably contribute to the quality of research, but this contribution is indirect and difficult to trace.

A number of federal policies and agencies regulated personnel procedures. Title VI of the 1964 Civil Rights Act[27] was (and continues to be) a principal guarantor of equal employment opportunity in federal agencies, as was Executive Order 11246.[28] The Equal Employment Opportunity Commisision (EEOC) publishes guidelines[29] for the 1964 Civil Rights Act covering recruiting, hiring, firing, transfer, and training. The Office of Federal Contracts Compliance within the Department of Labor also required compliance with the Civil Rights Act and the Executive Order by means of stipulations[30] in all federal contracts. This office now issues the affirmative action guidelines as well, although oversight of affirmative action plans has been the responsibility of several agencies (including HEW, the Agency for International Development, and the General Services Administration). Careful scrutiny of FWL's affirmative action plans and issuance of detailed guidelines for their preparation did not begin until the 1970s, and so will be dealt with in a later section. According to the

Director, FWL had (and continues to have) the finest minority staff in the country, and has had no difficulty in developing or in complying with affirmative action plans.

The preceding account of major policies at FWL between 1966 and 1972 is revealing. These were years during which the Laboratory established itself as a basically successful entity. There were instances of failure--the multicultural program in particular was a frustrating and ultimately frustrated effort--but by and large the Laboratory prospered. It expanded its staff and facilities, received increasing amounts of federal support (of the 35 laboratories and centers established, only Southwest Regional Educational Laboratory and Research for Better Schools have received more funds than FWL), and produced several products judged exemplary by indedependent reviews. Our analysis suggested that the attraction and maintenance of a highly regarded staff of experienced researchers was an important factor in FWL's success. With a stringent process of testing and development to validate Laboratory materials and a solid staff to plan and carry out this work, FWL impressed USOE administrators as a quality R&D performer. In summary, then, sound research management practices--quality control procedures in particular--and a strong staff were critical to the Lab's success. With evidence of thorough development practices and a number of successful products at hand, federal-level administrators were willing to let FWL continue its work without much interference.

During these years the locus of control over Laboratory activities was centered at the Laboratory itself. As discussed, Laboratory personnel had to comply with federal policies, particularly in the fiscal and substantive realms. The potential for intervention in Laboratory operations existed in the form of contract negotiations, site reviews, and employment guidelines, but these options for control were not often exercised. Other than the 1966 moratorium on funding and the adjuration to develop specific program plans, we discovered no major intervention or policy shift at the federal level that significantly influenced Laboratory operations at FWL. Two points should be emphasized, however. First, FWL was somewhat unique in that it was so little affected by policy shifts at the federal level. Second, while there were federal policies (i.e., contract guidelines) that required compliance, it was the major shifts in federal policy toward the laboratories that did not impact FWL.

Focusing on the lines of initiation and response during these years reveals a pattern of relations among the three levels of program directors (principal investigators), FWL management, and federal agents. Fiscal control clearly resided with USOE, while control over procedural and substantive matters rested primarily with FWL management. According to academic standards, individual researchers were relatively constrained in their freedom of inquiry. However, the option to initiate a project still existed at the researcher level--perhaps the most important freedom of all. Thereafter, of course, any project ran a gamut of reviews, perhaps discouraging to the individual investigator but necessary to the Laboratory. In addition to federal-level policy shifts, modest policy changes occurred at the FWL management level. Recognition of the need for copyright coverage to attract commercial distributors prompted FWL and other laboratories to seek the necessary amendments to copyright law[31] from USOE. Changes in the law were made in 1968 and 1970 to include developmental and limited copyright coverage[32] for Laboratory products. In general, there was a balance of authority among these three levels, with FWL management exerting the strongest influence during these years.

1972-75: Transition to and Impact of the NIE

Several months before the creation of NIE in 1972, USOE initiated a new funding policy patterned on the competitive procurement model used by other federal agencies like the Department of Defense. Under the new policy, all R&D would be procured through a competitive bidding process based on the stipulation of work in a Request for Proposal (RFP). The Transition Task Force ushering in NIE inherited this new policy, adopting "program purchase," as it came to be called, for the NIE. This new policy together with the transfer of laboratory responsibility from USOE to NIE resulted in significant changes in almost every aspect of laboratory operation. In the following pages we document the repercussions of policy shifts at one level of authority on subordinate levels of action. Again, we use the four realms of discretion to organize the account.

Fiscal Policy

The chief shift concerned fiscal policy; most significantly, the fiscal basis for all Laboratory programs changed with the switch to program purchase. There was no longer a basic contract to support existing programs. Based on a review of the Laboratory's programs by Transition Task Force panels, certain programs received continuation contracts (e.g., Minicourse testing), and other programs were terminated (e.g., the Information-Utilization Program, and in 1974 the Educational Management Program). Facing a sudden drop in funding, the Laboratory began an intensive effort in 1973 to search for funding opportunities. Over six months, extending to June 1974, FWL developed and submitted 31 proposals[33] to NIE and other agencies and foundations. This effort was successful, but did not meet the real problem, i.e., control over Laboratory direction and future planning. Finally and most recently, shifts in fiscal policy due to the shrinking appropriations voted NIE had an impact on FWL. NIE appropriations decreased from 1972 to 1975, instead of rising as expected. The fiscal year 1975 appropriation was reduced from an initial budget request of $130 million to $70 million, $19 million below the agency's projected continuations, and $5.7 million below the previous year's appropriation. NIE has attempted to honor its good-fath agreements with the Laboratories by fulfilling the three-year contracts set as a result of the task force review in 1972. To live within the reduced appropriations, it has been necessary to cut existing continuations by 15%.[34] This has resulted in reductions in the scope of work covered by NIE contracts, including the Minicourse research project.

Other shifts in fiscal policy were related to the switch to program purchase. Under USOE, FWL was considered a financially dependent contractor who negotiated a nonfee-bearing contract. In 1968, USOE rated the laboratories then in operation, and those who received a "mature" rating were asked to submit a proposal for a construction grant. FWL was one of the laboratories and centers to respond. Based on this rating and subsequent ratings of "maturity," FWL was categorized as financially independent by NIE.[35] This policy shift had consequences to which FWL is still responding. While a nonfee-bearing contractor cannot legally be held accountable for cost overruns, satisfactory completion of work, and the like, a fee-bearing contract is subject to such restrictions.[36] Primarily, this means the laboratory operations are subject to stricter accounting measures. Greater definitude of financial data, contractual compliance, and administrative resources in general is required. Consequently, FWL is developing a data processing system and a management information system to meet these more stringent demands for accountability.

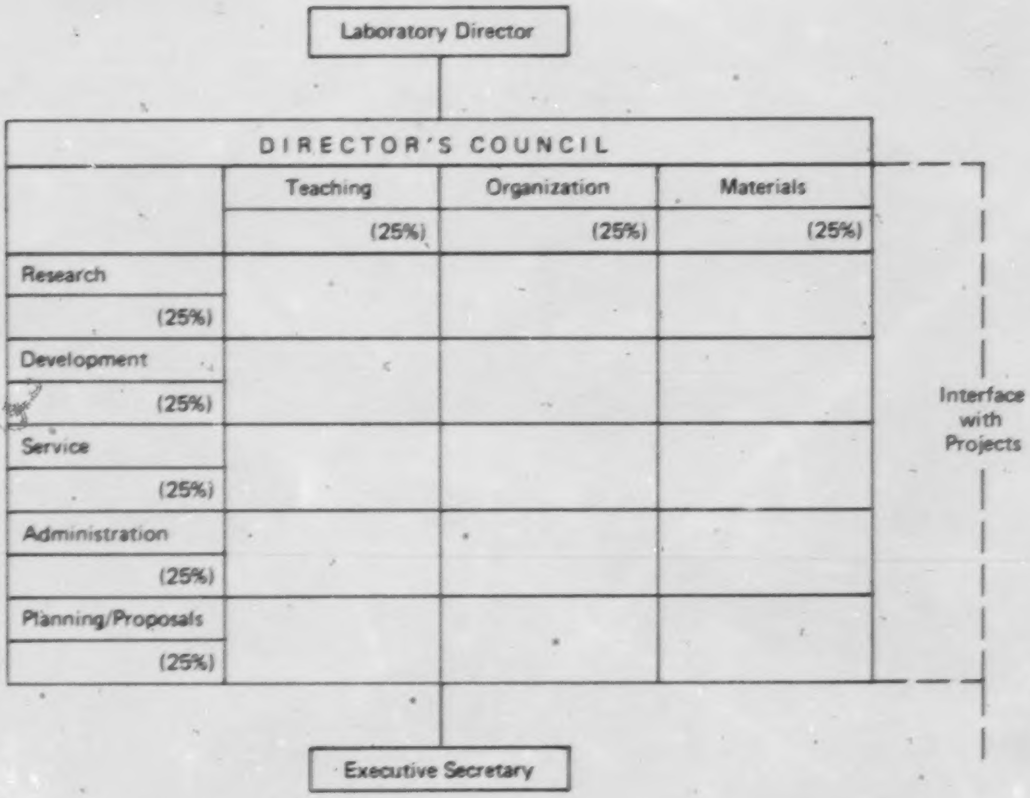
The program purchase policy further entails the switch to fee-bearing contracts. The Fee Guidelines[37] are now in effect as key policy regulators, and the Laboratory must engage in the lengthy process of fee negotiation for each contract. Likewise, in the absence of a basic contract to support research and researchers, FWL must establish a capital reserve, i.e., build up equity beyond the fees and overhead provisions subject to negotiation. This reserve is particularly important in supporting "down time" for researchers whom the lab wishes to retain (although the capital reserve funds have not yet been put to this use).

Program purchase policy has also influenced the negotiation of overhead rates. Under USOE and with a basic contract, such negotiation was a standard procedure. Today when FWL as an independent contractor proposes its annual provisional overhead rate, it is subject to much greater scrutiny and lengthy negotiation. As well, federal procurement regulations[38] preclude use of contract funds for developing proposals. Since such expenditures constitute all-owable overhead expense, FWL's overhead has been increased by about $250,000 per annum. Moreover, the increased time and effort devoted to these negotiations has necessitated some organizational changes, which will be discussed below.

Procedural Policies

FWL has undergone extensive reorganization to cope with the new procurement system. Figures IV-9 and IV-10 show the most recent (1974) reorganization of Laboratory structure. Under the new funding arrangements, the Executive Panel was superfluous and was discontinued. Whereas the principal investigators (PIs) had worked independently, they now report directly to the Director,[39] who coordinates and oversees the work. The Director's Council, composed of the eight associate directors, is an important policy-setting and advisory body that meets regularly with the Director to consider matters of Laboratory-wide import. Each of the associate directors must devote 25% of his/her time to business of the Council;[40] the remaining 75% is allotted to project work and other line functions. The purpose of this new structure is to provide flexibility in work on a series of contracts while maintaining control and coordination over the variety of work in progress. Staff and line functions are no longer separate, as there must be greater coordination among the functions of planning, financing, and carrying out the work.

The Planning and Proposals Office has the crucial function of monitoring RFPs and determining the proposals to which the Laboratory should

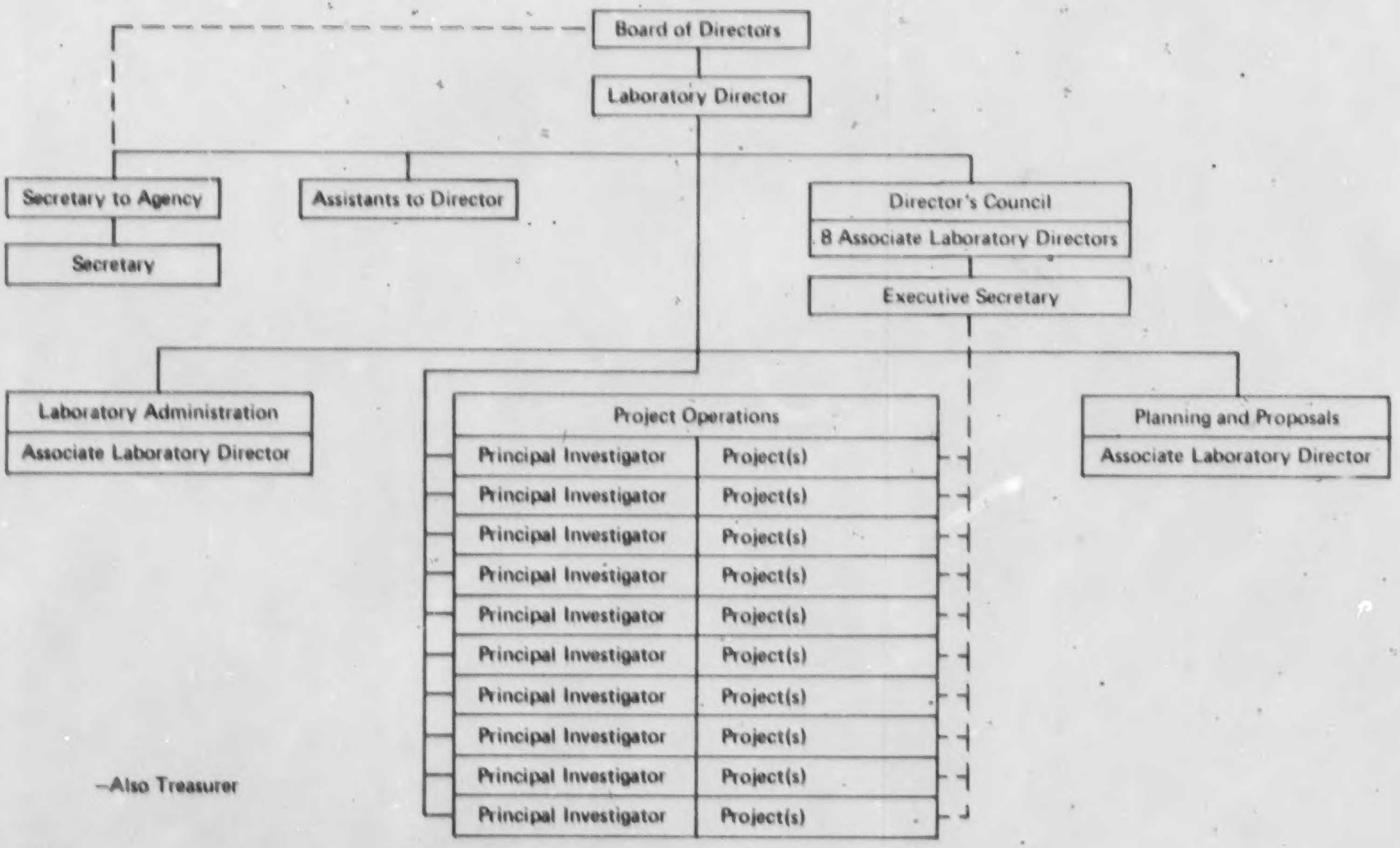

Laboratory Director
DIRECTOR'S COUNCIL
Teaching
Organization
Materials
(25%)
(25%)
(25%)
Research
(25%)
Development
(25%)
Service
(25%)
Administration
(25%)
Planning/Proposals
(25%)
Interface with Projects
Executive Secretary

Note: All members of the Director's Council are Associate Laboratory Directors.

FIGURE IV-9 MATRIX STRUCTURE OF DIRECTOR'S COUNCIL OF THE FAR WEST REGIONAL LABORATORY

respond. This office must devise a strategy allowing FWL to define and pursue its own goals and respond successfully to enough RFPs to guarantee stable and sufficient funding. Currently, the Planning and Proposals Office is drawing up long-range plans that may form the basis for FWL's future responses to RFPs.

A final change has been subsumption of all administrative responsibilities under one office. In the past, each division had some administrative tasks such as negotiations for overhead, budgeting, contacts with contracts officers, and the like. Today, however, with the increased


Board of Directors
Laboratory Director
Secretary to Agency
Secretary
Assistants to Director
Director's Council
8 Associate Laboratory Directors
Executive Secretary
Laboratory Administration
Associate Laboratory Director
Project Operations
Principal Investigator
Project(s)
Principal Investigator
Project(s)
Principal Investigator
Project(s)
Principal Investigator
Project(s)
Principal Investigator
Project(s)
Principal Investigator
Project(s)
Principal Investigator
Project(s)
Principal Investigator
Project(s)
Principal Investigator
Project(s)
Principal Investigator
Project(s)
Planning and Proposals
Associate Laboratory Director
—Also Treasurer

Note: The actual number of principal investigators (PIs) will vary depending on the number of projects in force and the number assigned to each PI.

FIGURE IV-10 TABLE OF ORGANIZATION OF THE FAR WEST REGIONAL LABORATORY

stringency of accounting procedures, one office assumes responsibility for these matters. Consequently, principal investigators are accountable to administration for matters like cost overruns, which must be more carefully monitored.[41]

With changes in every aspect of Laboratory operation, it was necessary to revise the Manual of Procedures. To date, the structure of internal policy has been set. The new manual, "Management Directives and Operating Procedures,"[42] establishes three levels of policy: Laboratory Policy as defined by the Joint Powers Agreement, Rules for the Conduct of Business, and Board Resolutions and Motions; Management Directives that translate general policy into more detailed directives, and augment and clarify policy for specific situations; and Operating Procedures that define the procedural steps to implement policy and directives. FWL is still in transition with respect to procedural policies; the old manual is obsolete and the new manual has not yet been compiled. Consequently, it is difficult to provide a more detailed account of Laboratory procedures.

Substantive Policies

The shift to NIE had both short-term direct, and long-term indirect effects. The former resulted from the work of the task force that managed the transition of laboratory and center programs from USOE to NIE. The latter resulted from FWL's response to the exigencies of the program purchase policy. We will discuss these effects below, beginning with those that were short-term and direct.

The task of transferring work under way at the laboratories and centers to NIE fell to National Center for Educational Research and Development (NCERD). In the spring of 1972, a review of each laboratory's programs was launched using a series of panels, each panel being responsible for one content area. A master panel reviewed all reports submitted and made the final decision on the dispensation of existing programs.[43] The recommendations of the specialist panels were in effect crucial policy decisions affecting all FWL programs then in progress.

Two aspects of these panel recommendations especially affected Laboratory programs. First, each specialist panel made specific recommendations[44] on the nature of work to be carried out in that program. For example, the recommendations on the Minicourses called for the following:

- Begin systematic evaluation of effects of Minicourse training on student outcomes.
- Enlarge the R&D component to include activities of summative, comparative evaluation of product effectiveness using a variety of pupil product measures.
- Complete all products under development.
- Hold work on courses for which the main field test has not begun.

These directives substantially altered the nature of this program and produced a number of changes at the Laboratory. Other recommendations by specialist panels for all the major programs necessitated considerable reorganization, reallocation of resources, reappraisal of objectives, and reassignment of staff.

Second, the panels classified each program into one of six categories, which determined the funding level for that program:

- Funding for program in question will be continued.
- Substantial program modifications are being considered.
- Substantial cuts in funding from the level requested are being considered (greater than 15%).
- A funding recommendation is being considered close to the level requested.
- The program is classified as a "new start," and further consideration will be postponed.
- Other.

The classifications each program received determined its future status and prospects.[45] The major FWL programs fared well and received continuation contracts although in most cases changes were requested in the scope and nature of the work. Three programs, however, were classified "new starts"--Early Childhood, Renewing Home-School Linkage, and Information-Utilization--which meant a delay and possibly an end to their funding. FWL responded by appealing the classification,[46] and "won" two of the three cases. The Information-Utilization program ended, however, as funding was ultimately discontinued.[47]

The final action governing FWL utilization-dissemination efforts proved particularly galling. The Information-Utilization Program at the Laboratory had been categorized as a new start even though FWL had engaged in utilization activities for a number of years. (In 1970, utilization activities for all programs were gathered in one division; the task force considered this the starting date for a utilization program, and categorized it a new start.) To provide funds for utilization, the task force director suggested that the program be disbanded and provision for utilization activities be appended to plans for the other Laboratory programs.[48] FWL complied, only to learn some weeks later that the master panel, pressed for time, had refused to consider any addenda to the program plans.[49] Consequently, FWL lost most of its funding for utilization-dissemination efforts, and their work in this area has been considerably curtailed since 1972.

Evidence exists that FWL had some impact on policy decisions made by the Transition Task Force of NCERD. The Laboratory was able to win two of three appeals on program classifications, and the task force solicited response to the specialist panels' program recommendations through meetings and in writing. On the other hand, the head of Teacher Education vehemently protested the decision to halt Minicourse development and embark on a new research effort, but these objections did not affect the final decision. It appears, then, that while FWL had some effect on task force decisions and was given some opportunity to participate, most decisions were made unilaterally beyond any influence from FWL.

Beyond this impact on specific Laboratory programs, there were the effects of program purchase on Laboratory planning in general. First, program planning fell into disarray (between 1972 and 1974) as FWL faced the dilemma of attempting to respond to RFPs over which they had little control while maintaining some initiative in preserving long-standing interests, programs, and goals. Under the new organization, however, the Planning and Proposals Office has assumed the planning function. Second, a new program emphasis has been developed--supplying direct services to LEAs. A program division created[50] to accomplish this purpose offers services such as providing materials, consultation, workships, and training sessions; assistance in planning, developing, and evaluating programs; and aid in producing media. To say that this new direction results solely from the shift to program purchase policy would be an exaggeration, but there is a strong connection. By emphasizing direct service, FWL hopes to build a constituency at the local level to support its existence. Likewise, this service emphasis is likely to appeal to Congressmen who demand immediate, tangible results from their investment of the tax dollar. Hence, one might conclude that the shift in federal funding policy has affected the priorities among mission goals at FWL.

Personnel Policies

Changed work conditions at FWL have had a particularly severe impact on personnel. First, with the loss of institutional support, the Laboratory was forced to release many employees at various levels of authority (see the effects on Minicourse staff, as reported in Case Study V). The issue is not simply that cutbacks in funds have required reduction of staff. Rather, the necessity to respond regularly to RFPs requires new skills and combinations of skills. Frequently projects are multidisciplinary; also, the disciplinary background necessary for one project may be irrelevant for the next, making it difficult to recruit permanent staff. The new funding situation places a premium on flexibility, while FWL has in past operated as a traditional employer establishing long-term staff commitments through benefits, retirement plans, and the like. The Laboratory has responded to this new situation with two policy changes. First, staff are now given only one month's notice,[51] instead of up to four months' notice. Second, FWL now uses fixed-term contracts for its personnel, with all aspects negotiable.[52] Thus, the Laboratory can hire short-term staff to work only for the duration of a particular contract. The number of permanent employees has decreased since 1972, and the number of temporary staff has increased.

Since 1972, policy shifts at the federal level unrelated to the program purchase policy have also affected FWL employment practices. As mentioned, responsibility of affirmative action plans has resided in several agencies. In addition, the guidelines for these plans have changed. Initially guidelines were fairly general in requiring "fair" employment practices.[53] More recently, these guidelines have stressed quota requirements for minority hiring, based on specific numerical goals derived from Department of Labor statistics.[54]

The most recent review of FWL's Affirmative Action plan produced another change: The Human Rights Commission, which now monitors Affirmative Action plans, rules that the employment area for FWL was not the Bay Area, as previously assumed, but the City of San Francisco.[55] Since the percentage of minorities differs in these two areas--the concentration is greater in San Francisco--this ruling requires revision of the Laboratory's Affirmative Action plan. FWL has appealed this ruling with the argument that the Laboratory has always drawn its employees from the entire Bay Area;[56] to date there has been no reply to this appeal. Over the years, however, FWL has not had difficulty in attracting well-qualified minority staff, and compliance with federal policy in this area has raised no problems.

Summary

Since 1965, there has been no consistent federal policy on the laboratories and centers. Apparently, the initial plan was to establish a group of regional laboratories to serve regional needs and interests. As Washington became disenchanted with increasing expenditures for education, a press developed for greater responsiveness to national needs, i.e., product development for national distribution rather than direct service to regional groups. At present, the laboratories and centers lack any special relationship with a federal agency and operate as individual entities whose paramount concern is survival. Calculations based on this need to survive play an increasingly important role in defining the mission and the type of activity that laboratories pursue.

Maintaining a "critical mass" of researchers to systematically attack a problem has been particularly acute since 1972. Research staff is a vital ingredient in an R&D performer's success, but the uncertainty of funding and the necessity to remain flexible in terms of staff skills and training may well undercut the Laboratory's ability to attract and hold top researchers. Moreover, FWL must now devote a greater proportion of its resources--time, money, and personnel--to locating suitable funding sources and to writing proposals, which may mean a decreased ability to develop and maintain a critical mass of effort over time around a selected topic of concern. A second point is that many educational problems are tractable only with steady, prolonged work. A mode of research procurement emphasizing many short-term contracts does not allow a research team the time or resources to mount a sustained research effort. The slow, incremental nature of R&D runs counter to the need for immediate solutions to pressing problems; the result frequently is a rush to judgment, i.e., the bandwagon effect. At any rate, sustaining inquiry on a particular issue will probably continue to be a problem for the laboratories, planning notwithstanding.

Little comment is necessary about the effects of policy shifts at the federal level. As discussed, the program purchase policy has had numerous effects on FWL, including the Laboratory's increasing politicization as it seeks to establish support, influence in higher councils, and a firmer financial base. Specifically, the new emphasis on educational services reflects a perception of the need to build a political constituency at the grass-roots level. The recent successful lobbying efforts of Council for Educational Development and Research (CEDaR) to earmark part of NIE's fiscal 1976 appropriation for the laboratories and centers is another indication of political activism at the federal level. Then, too, there is the "dealing" entailed in the RFP bidding process: "Pre-arrangement seems to be the rule rather than the exception, in consideration of potential contractors and grantees. However an idea originates, it is apparently common practice ... to discuss a project extensively with a favored award recipient, and to work out some sort of plan for proceeding. When this is done, the formalities are then instituted as an afterthought" (Green, 1971).* In this situation, FWL may not need good researchers as much as a few intelligence men privy to the inside information on RFPs. This reality of the procurement process strongly favors contractors with political savvy and connections.

Finally, we may summarize the shifts in locus of control. It is too early to assess the influence of the principal investigator under the new organization. The Director's Council may become a critical policy-setting body at the Laboratory, in part replacing the Executive Panel; this shift suggests increased responsibilities for principal investigators. The Director retains his preeminent authority and to him falls the responsibility of reviewing all proposals, prototype materials, field-test data, and the like. In addition, he oversees the day-to-day work of principal investigators even more closely than before, and so retains signficant control over all activities. While there has been some shift in control within the Laboratory, the principal shift has occurred between FWL management and the federal level. The program purchase policy allows federal agencies to specify in detail the substance of the research to be carried out, the amount and allocation of funds for that research, and to an extent the procedures and methods of research. While there is room for negotiation over an RFP, the initiation-response ratio has shifted heavily in favor of the federal level. Neither FWL management nor principal investigators have as much discretion in the conduct of R&D as they had before 1972. On the basis of this policy analysis, we cannot judge one strategy versus another; such judgment must ultimately rest on the consequences of each strategy, not on policy implications.

---

*References are appended to this case study.

IV REFLECTIONS ON METHODOLOGY AND THE ANALYTICAL FRAMEWORK

Difficulties in Using the Analytical Framework

Although the analytical framework helped considerably in the initial structuring of the inquiry, it was not too helpful in the actual collection of data. This is significant because a major difficulty in pursuing this topic proved to be data collection. The framework can certainly suggest what information to obtain, but cannot assist the process of getting it. Only the diligence of the analyst ensures that all relevant data have been collected. This aspect of policy analysis is no different from investigative reporting, in which corroboration of facts by multiple sources is the principal guarantee of accuracy. In this case, time constraints coupled with confusion at the Laboratory due to reorganization and relocation resulted in a lack of thorough documentation. This is of interest as more than a mea culpa, however, as it points to the basic problem of underestimating the amount of time and effort necessary to uncover the interactions of policies, agents, and activities over a significant period. Key agents will probably be vague and unreliable when delving ten years into the past, and key policies may not be formally codified but may exist only in correspondence, inter- or intra-agency memos, minutes of various committees, and the like. Locating and piecing together these policies is an extremely demanding task. What occurs, then, is a process of simplification to accommodate the amount of information one is actually able to obtain.

One condition determining the form and content of a case study is the kind and amount of information that the analyst is able to collect. That no case study is any better than the data on which it is based may be a trivial observation, but in another sense it points to a certain danger in using the framework; i.e., the terms "significant" or "relevant" or "major"--when applied to policies, activities, and the like--become merely euphemisms for that which is available. The significance of a policy cannot be an a priori claim in an analysis, but is in fact what must be demonstrated by the analysis.

A primary criterion by which to judge the significance of a policy is the purpose of the analysis, i.e., the particular question generating inquiry. In a case study of any size, there will initially be myriad policies requiring attention. The decision as to which policies should be called out in detail, which touched on, and which ignored altogether must be made with reference to the topic of analysis. For this reason, selecting the purpose of analysis and identifying the focus and field of analysis (Steps One and Two of the mapping paradigm) are extremely important. When in doubt about the relevance of a policy or activity, first recourse is to the purpose and to the focus of analysis for clarification. In practice, of course, the result of frequently consulting this purpose may be its reformulation, which is in itself a valuable outcome. Experience with this case study has strongly supported the advice provided earlier in this report: state the purpose of inquiry as concretely as possible, return to it often for revision, and use this statement as an aid in the process of selectively attending the data.

A Potential Source of Error in Using the Framework

A distinction has been made between "logic-in-use" and "reconstructed logic" (Kaplan, 1964). The former refers to the actual cognitive processes--which are more or less logical--that scientists employ in the conduct of inquiry. The latter refers to explicit formulations of these processes, principally as normative discourse, which philosophers of science and others create. A reconstructed logic is not a description, but rather an idealization of scientific practice. This is a useful distinction to keep in mind relative to use of the analytic framework. When one reflects on the process of carrying out a policy analysis with the aid of a conceptual tool such as the analytic framework, it is easy to substitute a reconstructed logic for the logic-in-use. The result is more elegant and rational than the actual case. From our experience with this case study, we see danger in the following sequence (a potential logic-in-use): first, underestimating the time entailed in data collection; next, of necessity gathering only those facts that are most accessible; and, finally, appending the honorific "significant" to the data, when that is precisely what is to be established, and when what is meant is "available."

Ideas for Further Exploration

Although the key terms in the taxonomy and the steps of the mapping paradigm were useful in the inquiry, in this topic it would have been misleading to structure the entire analysis around categories to be found in the framework.

Table IV-1 presented four categories--fiscal, procedural, substantive, and personnel--that we found useful for this topic. We draw attention to the usefulness of these categories for two reasons. First, findings using these categories can be compared with findings that result from the other case studies in this volume. (If each study turns up a unique set of categories that are clearly more useful as descriptive rubrics than those in the taxonomy, then it would seem that a general taxonomy is not of particular use in describing the governance of KPU.) Second, we believe that this particular set of four categories might prove useful for organizing empirical studies connecting measures of R&D quality and productivity with variations in the numbers and kinds of policies constraining researchers. Table IV-1 can clearly reveal periods of policy expansion that could be linked to appropriate output measures of R&D activity. Arguments over the locus of control for research could certainly benefit from empirical results demonstrating the efficacy of various patterns of control.

While conducting this case study, an alternative method of conceptualizing and presenting the topic occurred to us. Although this idea came too late to incorporate in the study, we feel it is potentially valuable and warrants a brief exposition here.

The case study as written alludes to the locus of control over research activities, as defined either by formal policy or by an agent's area of discretion in setting, interpreting, or implementing policy. More specifically, shift in locus of control was a dominant motif, yet it was never demonstrated with concrete detail. Reflection on this shortcoming suggested the following approach.

- Conceive the conduct of research at FWL in terms of decisions that must be made. To organize thinking about these decisions, the four realms of discretion are useful. We do not have to introduce a new concept, i.e., "decision," into our system because each decision statement specifies an activity.
- Develop a taxonomy of these decisions beginning with the four discretionary realms--personnel, procedure, substance, and fiscal--and developing further headings and subheadings as necessary.
- Design a table with three columns: decision/activity; policy (the policies regulating that decision); and agents (those having discretionary authority over that decision).
- To indicate shifts in regulation, consider several possible devices. Decision maps for more than one time period may be drawn, or color coding may be used to indicate policies and agents at various time points.

With this scheme, which enters the system by means of decisions, we can portray patterns of regulation efficiently and concisely, and demonstrate how these patterns change over time. Such a table would allow quick appraisal of which activities or decisions are controlled by which policies and agents at which levels of authority. Enumerating decisions would be the most difficult aspect of this scheme with no guarantee than an eventual list is either complete or stable, but we feel this approach is feasible. To demonstrate this approach, we offer the following example relative to fiscal decisions with the caveat that more detail is needed in enumerating decisions.

1 Allocating funds to FWL
    1.1 for overhead expenses
    1.2 for specific programs
    1.2.1 for specific activities within a program (in this case, Minicourse development).
2 Monitoring expenditures by FWL.

Table IV-2 presents these decisions for two time period. Treating this set of decisions from most to least specific, we have observed the following: From 1966 to 1972, the program director for Minicourse development was responsible for drawing up a basic program plan in which he specified the funds necessary for ongoing and projected work on the Minicourses. This plan included both program and overhead expenses. At the FWL management level, this plan was subject to scrutiny by the Laboratory Director, who had discretionary authority to request changes. Discretionary authority of the Laboratory Director and the Board of Directors also influenced the allocation of funds among the various FWL programs, which was a key element in establishing the overall negotiating budget for the Laboratory. The formal policy regulating the negotiating budget resides in the budget section of the Manual of Procedures and requires review of all basic program plans by the Laboratory Director and approval by the Board of Directors.

A second and equally important source of governance was USOE. First, each program plan had to meet the requirements of the relevant guidelines set by federal procurement regulations. Second, a contracts officer at

Table IV-2

A DECISION-ORIENTED STRUCTURING OF POLICIES

Activity		Policy	Agent's Area of Discretion*
(a) 1966-1972			
1	Providing funds for FWL		USOE Contracts Officer
1.1	Allocating funds for overhead expenses	Federal Procurement Regulations	USOE Contracts Officer; Laboratory Director; PI
1.2	Allocating funds for specific programs	Federal Procurement Regulations Section of Budget Manual	USOE Contracts Officer; Board of Directors; Laboratory Director
1.2.1	Allocating funds within a program	Federal Procurement Regulations Section of Budget Manual	USOE Contracts Officer: Laboratory Director; PI
2	Controlling expenditures	Section of Budget Manual	USOE Contracts Officer; Laboratory Director; PI
(b) 1972-1975			
1	Providing funds for FWL		
1.1	Allocating funds for overhead expenses	Federal Procurement Regulations	USOE Contracts Officer
1.2	Allocating funds for specific programs		Contracting Agent; Director; Director's Council; Planning and Proposals Office; PI
1.2.1	Allocating funds within a program	Fee Guidelines	USOE Contracts Officer
2	Controlling expenditures	Federal Procurement Regulations	USOE Contracts Officer; Laboratory Administration

*Listed in order of descending authority.

USOE exercised discretionary authority in negotiating the budget with FWL management. This agent had ultimate authority over the amount of funds provided the Laboratory, although Laboratory management could influence his decision through the negotiating process. Finally, the budget had to be ratified by the Board of Directors, but this was primarily a formality.

In the second major decision area--control over actual expenditures--the locus of control rested primarily within the Laboratory. Because FWL negotiated a nonfee-bearing contract, they were not legally accountable for cost overruns or the like. The progress of expenditures was regulated by three agents: the contracts officer; the Laboratory Director, who made quarterly reviews; and the PI. Between 1966 and 1972, however, there were no strict cost accountability requirements nor were there sanctions to be applied under the provisions of nonfee-bearing contracts.

The foremost change after 1972 was that, without financial support, FWL had to search actively for funding. The crucial decisions now concern selecting those RFPs to which responses should be made. Stipulating specific activities and the funding to support them falls within the authority of the contractor, generally a federal agency such as NIE or USOE. Because of its independent status, FWL now negotiates fee-bearing contracts, so the fee guidelines are the principal policies regulating specific provisions of each contract. As already mentioned, accountability with respect to cost overruns, satisfactory completion of work, and the like are legally enforceable though the courts, so Laboratory administration now monitors the work and expenditures for each contract more closely. As a result, the principal investigator has considerably less control over allocations and expenditures than formerly. Hence, another key shift in locus of control has centered on the monitoring of expenditures, which principally resides with the federal contracting agencies.

FWL is attempting to regain a measure of initiative in locating resources for programs. The Planning and Proposals Office must take recommendations on which RFPs merit response, subject to review by the Director and the Director's Council, so that in one sense control over allocation of funds to programs rests with FWL management. However, in practice, it is frequently the principal investigator with a good reputation who unites the proposal and secures funding, and the decision to award funds lies in the hands of the agency putting out the RFP. It appears, in this case, that no clear assignment of authority can be made, but rather that aspects of control are shared at all three levels.

A shift has occurred with respect to overhead rates, however. As mentioned, federal procurement regulations prohibit use of contract funds to develop proposals, which has increased the overhead rate, and this rate is now subject to greater scrutiny by the contracts officer. The discretionary authority of this federal agent acts as a more powerful regulator than in the past.

Overall, a significant shift in locus of control has clearly taken place since 1972. The federal agencies that put out RFPs have ultimate control over the allocation of resources to FWL and to programs within FWL. All FWL contracts are now subject to stricter controls and the contracts officer has increased discretionary authority in monitoring contracts. The Laboratory preserves some initiative in selecting RFPs. Its choices being influenced by a number of agents within the Laboratory: the Director, the Director's Council, the Planning and Proposals Office, and the principal investigators (many of whom sit on the Director's Council).

V RECOMMENDATIONS

Although a number of recommendations could be made based on our research of this topic, we make only one: that NIE sponsor a study to describe and document the history of the laboratory and center program as a case study in federal KPU management.

The KPU institutions--the regional laboratories, the R&D centers, and the policy research centers--created by the Elementary and Secondary Education Act in the mid-1960s are social inventions that represent the largest single strategic investment in EKPU made by the federal government to date. To some extent, the very formation of the National Institute of Education stemmed from a recognition that these new KPU institutions could not, by their very nature, be well-governed by an institution such as the U.S. Office of Education.

This case study indicated that one of these institutions--the Far West Regional Laboratory--fared relatively well when confronted with a variety of unanticipated policy changes from the federal government. On the other hand, it is apparent that many other institutions fared far less well, and that the lack of policy regulators requiring more stability in governance policy from the federal level should--from a systems perspective--be of concern. It is one thing, however, to assert from an academic perspective that the federal government should somehow be subjected to the types of regulative influences it would place on other institutions. It is quite another to figure out just what types of influences would be appropriate to suggest.

Because the history of the laboratory/center experiment is so incredibly rich in potential learnings about KPU governance (both positive and negative), and because more needs to be understood about the impacts on the KPU field of rapid and unanticipated shifts in federal KPU/management strategy, we most strongly recommend that NIE or a private foundation sponsor a relatively thorough case study of federal involvement with the regional laboratories, the R&D centers and the policy research centers. Among the issues/concerns that such a case study might address are the following:

- What happened to the institutional support procurement policy? How was it changed, and with what explicit rationales? What do actors who were behind the scenes say about the ways through which this policy was changed?
- What happened to the different roles that were to be played by the three types of institutions--the regional laboratories, the university-affiliated centers, and the policy research centers? Have they maintained a differentation of functions, or has the competitive pressure for funds made them all claim expertise in essentially the same skills?
- What major strategic changes in program management policy occurred from the inception of the laboratory/center program until the most recently established NIE policy? What major impacts on the laboratories and centers appear to have been caused by these changes?
- To what extent can various conceptual strategies (such as those often referred to as "R&D," "RDDA," and "KPU") or the lack of any such strategy, given the pressures of bureaucratic life (i.e., "muddling through"), be identified as having been followed by the federal laboratory/center program managers?

Annex A

TAXONOMY OF ALL POLICIES

Annex A

TAXONOMY OF ALL POLICIES

Number	Policy	Substance	Type	Source	Target
1	ESEA Title IV	Enabling legislation to establish a regional laboratory	Statutory (enactment)	U.S. Congress	FWL
2	Guidelines for a national program of educational laboratories	Drawing up a prospectus for a regional laboratory	Administrative (guidelines)	HEW	Groups to form regional laboratories
3	Prospectus establishing a regional laboratory	Initial plan for FWL	Nongovernmental (proposal)	Planning group--FWL	HEW
4	Joint Powers Agreement	Establishing Board of Directors, voting and meeting procedures, officers, agencies, scope of powers, and withdrawal procedures	Constitutional (articles of incorporation)	Signatories of Agreement	FWL
5	HEW--USOE planning grant	Drawing up plans for FWL	Contract (contract)	HEW and USOE	FWL planning staff
6	Progress report	Setting goals, organization structure, and initial projects for FWL	Administrative (guidelines)	FWL planning staff	USOE
7	Needs assessments	Setting needs and priorities for region served by FWL	Administrative (guidelines)	FWL management	FWL staff
8	FWL Executive Panel program recommendations	Initial projects and programs for FWL	Administrative (guidelines)	FWL Executive Panel	FWL management
9	Rules for the Conduct of Business	Board meetings; election/removal of officers; recording provisions; authority of Director	Administrative (guidelines)	FWL Board of Directors	FWL management and staff
10	Resolutions of the FWL Board of Directors	Formal approval for all FWL business and operations	Administrative discretionary act)	FWL Board of Directors	FWL staff
11	Manual of Procedures	Procedures for management property control; program proposal and review; personnel; administrative services; accounting; budgeting; contracts, agreements	Administrative (regulations)	FWL management	FWL staff
12	Proposal review: Section 20.01-.03, Manual of Procedures	Reviewing all proposals for projects and programs	Administrative (regulations)	FWL management	FWL staff

Annex A (Continued)

Number	Policy	Substance	Type	Source	Target
13	Product development and release: Section 30.01-.05, Manual of Procedures	Quality control checks for four classes of FWL products	Administrative (regulations)	FWL management	FWL staff
14	Transfer product from development to utilization program: Section 40.01-.03, Manual of Procedures	Reviewing products for release and preparing a utilization plan	Administrative (regulations)	FWL management	FWL staff
15	Applying for copyright: Part V, Proposal Manual, Manual of Procedures	Reviewing request for copyright coverage of FWL products	Administrative (regulations)	FWL management	FWL staff
16	Basic contracts, USOE and FWL	Covering all programs and projects, including overhead expenses	Contracts (contracts)	HEW and USOE	FWL
17	Basic program plans	Details of R&D, activities for each major division of FWL	Administrative (common law)	FWL division heads	FWL staff and team leaders
18	Guidelines for preparation of contractor's request for continual funding	Preparing FWL budget	Administrative (guidelines)	USOE	FWL
19	FWL negotiating budget	All programs and projects, as well as overhead	Administrative (common law)	FWL management	USOE
20	Approved budget, FWL	All programs, projects, and overhead for each year, 1966-72	Administrative (discretionary act)	FWL management	FWL staff
21	Quarterly reviews of FWL budget by Director	Rate and amount of expenditures toward budget for that year	Administrative (discretionary act)	FWL Director	FWL staff
22	Contracts: FWL, OEO, Carnegie Corporation, and others	Stipulating work to be done in the Early Childhood Program	Contracts (contracts)	OEO and Carnegie Corporation	FWL
23	Three-month funding moratorium	Review of FWL activities	Administrative (regulation)	USOE	FWL
24	Executive Panel recommendations for priority programs, 1966	Development of Teacher Education and Communication program materials	Administrative (guidelines)	FWL Executive Panel	FWL staff
25	USOE emphasis on service	Direct services to districts served by FWL	Administrative (discretionary act)	USOE	FWL

Annex A (Continued)

Number	Policy	Substance	Type	Source	Target
26	Personnel Manual	Recruitments, hiring, firing; compensation and benefits; staff advancement; professional activities	Administrative (regulations)	FWL management	FWL staff
27	Civil Rights Act, Title VI	Prohibits discriminatory employment practices in federally supported institution	Statute (enactment)	U.S. Congress	FWL
28	Executive Order 11246	Prohibits discrimination in hiring practices	Administrative (discretionary act)	President's Office	FWL
29	Office of Equal Employment Opportunities guidelines	Specifies unlawful practices; indicates equitable employment practices	Administrative (guidelines)	EEO	FWL
30	Guidelines for preparation of contracts, employment section	Nondiscriminatory employment practices	Administrative (guidelines)	Department of Labor, Office of Federal Contracts Compliance	FWL
31	Policy on limited copyright protection, 1968	Providing limited copyright protection for FWL materials	Administrative (regulations)	USOE	FWL
32	Guidelines on authorizing copyright protection for materials developed under federal grants and contracts	Securing copyright protection; developing thin markets; producers in development; royalties; developmental copyright protection	Administrative (guidelines)	USOE	FWL
33	Contracts with various agencies--NIE, OEO, Carnegie Corporation, and others	R&D activities as specified in RFPs	Contracts (contracts)	NIE, OEO, Carnegie Corporation, and others	FWL
34	Reduction (15%) in NIE continuation contract funds	Reducing amount of funding for Minicourse research and other projects	Administrative (discretionary act)	NIE	FWL
35	USOE rating of FWL as independent, 1968	Establishing financial status of FWL	Administrative (discretionary act)	USOE	FWL
36	General provisions for negotiated cost-plus-fixed-fee contract	Reports of meeting obligations; defaults; delays	Administrative (guidelines)	USOE	FWL
37	Fee guidelines for cost-plus-fixed-fee federal contracts	Setting fees allowable for FWL operations	Administrative (guidelines)	USOE	FWL

Annex A (Continued)

Number	Policy	Substance	Type	Source	Target
38	Federal procurement regulations	Prohibiting use of contract funds for writing proposals	Administrative (regulations)	Department of Labor	FWL
39	Director recommendations to Board on FWL reorganization	Establishing new organizational structure for FWL	Administrative (discretionary act)	FWL Director	FWL staff
40	FWL Board of Director's resolution on ALD responsibilities	Each ALD shall spend 25% of time on Director's Council and 75% on line functions	Administrative (regulations)	FWL Board of Directors	FWL associate directors
41	Administration monitoring policy for contract compliance	Oversight and reporting on meeting all contract requirements	Administrative (guidelines)	FWL administration	FWL PIs
42	Initiation of Management Directive and operating procedures	Establishes new system of FWL procedures	Administrative (discretionary act)	FWL management	FWL staff
43	NCERD master panel recommendations for all FWL programs	Work on all FWL projects since 1972; stop development and start Minicourse testing	Administrative (guidelines)	NCERD Transition Task Force master panels	FWL
44	Specialist Panel C recommendations on FWL effective teacher education	Begin evaluation using pupil outcomes; include more evaluation; complete all products under development; hold work on all products not at MPT stage	Administrative (discretionary act)	NCERD specialist panel	FWL
45	NCERD master panel program classifications for FWL	Classified each program according to funding category; determined amount of NIE funds each program received	Administrative (discretionary act)	NCERD Transition Task Force master panel	FWL
46	FWL appeals on master panel classifications--Early Childhood, Home-School Linkage, Information-Utilization	Presenting arguments and evidence to demonstrate three programs were well established at FWL	Administrative (discretionary act)	FWL division heads	NCERD master panel
47	Letter from Dr. Tucker upholding classification of Information-Utilization program	Information-Utilization classed as new start; funds cut off for this program	Administrative (discretionary act)	Director, NCERD Task Force	Division Head, Information-Utilization Program

Annex A (Concluded)

Number	Policy	Substance	Type	Source	Target
48	Letter from Dr. Tucker: utilization activities to be addenda to program plans	Including plans for utilization as addenda to program plans	Administrative (discretionary act)	Director, DCERD Task Force	FWL division heads
49	Master panel discretionary decision: no addenda considered	No funds for utilization of FWL products provided by NIE	Administrative (discretionary act)	DCERD Task Force, master panel	FWL
50	FWL Board of Director's resolution establishing a new AED in charge of service, February 1973	Establishing new AED to run service activities for local schools	Administrative (discretionary act)	FWL Board of Directors	FWL Director
51	Notice of termination to employees	Establishing a one-month period of notice following termination of employment	Administrative (regulations)	FWL management	FWL staff
52	FWL fixed-term employment contracts	Establishing a fixed-term for FWL employment; employment conditions are negotiable	Administrative (regulations)	FWL management	FWL employees
53	Affirmative Action Guidelines	Establishing quotas for various categories of minorities	Administrative (guidelines)	Office of Federal Contracts Compliance	FWL
54	Affirmative Action Guidelines	Hiring minorities based on employment statistics for the employment area served by FWL	Administrative (guidelines)	Department of Labor, Office of Federal Contracts Compliance	FWL
55	Employment area for FWL	Redefining the FWL employment area from the Bay Area to the City of San Francisco	Administrative (guidelines)	Human Rights Commission	FWL
56	FWL appeal to Human Rights Commission ruling on employment area	Changing the FWL employment area	Administrative (order)	FWL	Human Rights Commission

Annex B

TAXONOMY OF POLICIES CONSIDERED SIGNIFICANT IN THE STUDY OF THE EVOLUTION AND OPERATION OF FWL

Annex B

TAXONOMY OF POLICIES CONSIDERED SIGNIFICANT IN THE STUDY OF THE EVOLUTION AND OPERATION OF FWL

Policy Name	Reference Citation	Policy Type and Generation Process	Source	Explanation of Significance
Title IV of PL 89-10	20 U.S.C. 861-870	Statutory Law (Enactment)	Federal (Legislative) (U.S. Congress)	Enabling legislation for the development of the laboratories and centers.
Guidelines for a national program of educational laboratories	USOE Document No. (n.a.)	Administrative Law (Guidelines)	Federal (Administrative) (USOE)	Federal guidelines for drawing up a prospectus for establishing a laboratory.
Joint Powers Agreement establishing the FWL for educational R&D	FWL Policy Archives	Constitutional Law (Constitutional)	Nongovernmental (Research facilities) (Northern California groups backing the establishment of a laboratory in San Francisco	The fundamental policy, plan, and identification of constituency for the FWL.
Contracts between USOE and FWL, 1965-72	USOE Contract No. (n.a.) (FWL Policy Archives)	Contracts (Contracts)	Federal-nongovernmental (Administrative-research facility) (USOE and FWL)	The prime source of funds from 1965-72.
Three-months' funding moratorium of 1966	USOE Memo No. (n.a.)	Administrative Law (Discretionary Act)	Federal (Administrative) (USOE)	Imposed a three-month funding moratorium. Resulted in FWL intensive two-month planning effort that yielded the proposal of six programs.
Manuals of procedure, three volumes: Laboratory Policy; Management Directives; Operating Procedures	FWL Policy Archives	Administrative Law (Regulations)	Local (Research facility) (FWL)	Codification of the FWL operating policies.

Note: n.a. = not available.

REFERENCES

Green, E., "Federal Funds in Education: When Does Use Become Abuse?" The Educational Forum, Vol. 36, p. 38 (November 1971).

Kaplan, A., The Conduct of Inquiry, pp. 8ff (Chandler Publishing Company, Scranton, Pennsylvania, 1964).

SELECTED BIBLIOGRAPHY

Corwin, R. G., "Beyond Bureaucracy in Educational Research Management," The Generator, Division G. AERA (Winter 1975).

Corwin, R. G., and S. A. Nagi, "The Case of Educational Research," in Social Context of Research, S. A. Nagi and R. G. Corwin, eds., pp. 351-396 (John Wiley and Sons, New York, New York, 1972).

Guba, E. E., and D. L. Clark, "The Configurational Perspective: A Challenge to the Systems View of Educational Knowledge Production and Utilization," Indiana University (November 1974).

Hemphill, J., and F. Rosenau, "Educational Development," Center for the Advanced Study of Educational Administration, Eugene, Oregon (1973).

House, E. R., The Politics of Educational Innovation (McCutchan Publishing Corp, Berkeley, California, 1974).

Lazarsfeld, P., and S. Sieber, Organizing Educational Research (Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1964).

Organization for Economic Cooperation and Development, The Research System, Vol. III (OECD, Paris, France, 1974).

Orlans, H., Contracting for Knowledge (Jossey-Bass, Inc., San Francisco, California, 1973).

Phi Delta Kappa, "The Training and Nurture of Educational Researchers," Sixth Annual Phi Delta Kappa Symposium on Educational Research, Bloomington, Indiana, 1966.

Sieber, S., and P. Lazarsfeld, "The Organization of Educational Research," USOE Cooperative Research Project No. 1974, Washington, D.C. (1966).

Taylor, W., Research Perspectives in Education (APS Publishers, New York, New York, 1973).

Case Study V

MINICOURSES AS AN EXAMPLE OF POLICIES AFFECTING THE DISSEMINATION/UTILIZATION OF A SUCCESSFUL R&D PRODUCT

by

Gary Sykes

CONTENTS

LIST OF ILLUSTRATIONS . . . . V-v

LIST OF TABLES . . . . V-v

I INTRODUCTION V-1

II USE OF THE ANALYTIC FRAMEWORK V-3

III SUMMARY OF FINDINGS V-7

Research and Development of Minicourses V-7
Dissemination and Adoption of Minicourses V-14
Case Studies of Adoption V-22
Case I: The Chicago Public School System V-22
Case II: Montgomery County, Maryland Office of Education V-25
Case III: The Houston Unified School District V-26
Case IV: Alameda County, California V-28
Summary of Adoption Case Studies V-29

IV RECOMMENDATIONS V-31

ANNEX

TAXONOMY OF POLICIES CONSIDERED SIGNIFICANT IN THE STUDY OF MINICOURSES V-33

REFERENCES V-37

ILLUSTRATIONS

V-1 Developmental History of Minicourses V-5

V-2 KPU Agents and Flows in the Research and Development of the Minicourse Method of Teacher Retraining V-9

V-3 Principal Flows and Agents in the Dissemination and Adoption of Minicourses V-10

TABLE

V-1 Chronology of the Key Events in the Development of Minicourses V-8

I INTRODUCTION

Instances of successful R&D products do not abound. The path from basic research to development of a product based on that research to widespread use of that product "in the field" is arduous at best. More often than not the linkage in this chain is broken at some point so that educational practice remains unaffected by research and development efforts. One instance of an innovation that traversed this path successfully is the Far West Laboratory's (FWL) teacher training product, the Minicourse. The general utility of the Research-Development-Dissemination-Adoption (RDDA) sequence stands in doubt today, but the development of Minicourses is an almost classic example of this sequence and of this strategy of educational change. The basic research on microteaching occurred at the Stanford University R&D Center; FWL established a liaison with the R&D Center and translated the concept of micro teaching skills into an educational product. FWL also engaged in dissemination activities while Macmillan Company marketed the product, and from 1969 to the present, more than 1000 minicourses have been sold or rented. A case study of the Minicourse is of interest because it has had widespread use, represents a classic R&D strategy, and provides access to the interactions of a number of important R&D agents.

The purpose of this analysis is to trace the development of the Minicourse from the idea stage through its use in school districts, noting the various interactions and configurations of agents, policies, activities, and resources, and to identify the factors that are believed to influence most its utilization. With this case study we hope to assess the adequacy of the analytic framework as an aid to understanding how a given KPU activity functions in relation to its relevant policies (requiring analysis of the interactions of system elements--policies, agents, activities, resources--through time, across levels of scope, and frequency using several foci of analyses). We wish to test complex use of the analytic framework for its feasibility and for the insight it provides into an EKPU activity.

A number of sources provided data for this study. Interviews with staff at the Stanford R&D Center and at FWL, with representatives of Macmillan Company, and with a number of district and county administrators who purchased or rented Minicourses were particularly informative. The other primary sources were papers, memos, program plans, correspondence, and the like at FWL. A principal agent not consulted directly was the Office of Education, which sponsored the Minicourse development work; this has resulted in a lack of perspective on Minicourse development because there is no federal point of view to balance the perceptions of local and regional agents.

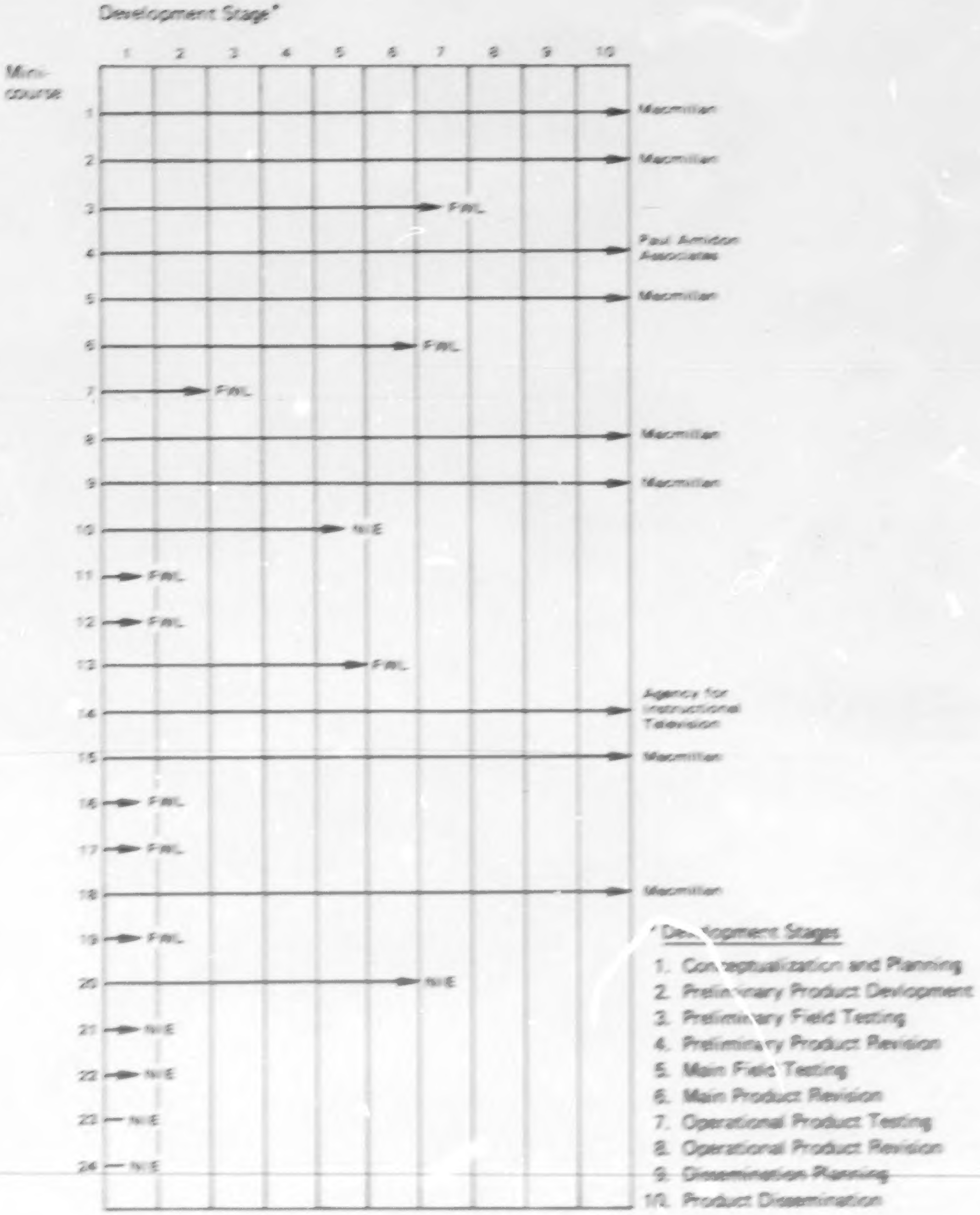
II USE OF THE ANALYTIC FRAMEWORK

To properly acknowledge the difficulty in applying the framework to Minicourses as a topic, and to indicate our resolution of the problem, we preface this case study with remarks on the use of the analytic framework. What follows are some comments on the feasibility of carrying out a complex analysis of this topic.

In general, the analytic framework is a tool having a number of functions related to the various aspects of policy research. It may aid in the collection of data, in the process of conceptualizing on EKPU activity, in the organization and presentation of information, and in the process of interpretation and hypothesis formation. Our experience in this case was that the framework served some of these purposes better than others. The analytic framework well served the initial stages of data collection and conceptualization of the topic. The collection of information proceeded on a basis estabiished by the four system elements, for example: What were the activities? What agents were involved? What policies had what effects on activities and agents? What resources were available? Likewise, in a process less easy to specify, the analytic framework informed our thinking as we approached the topic. It proved useful first in that process of selective awareness through which tacit judgments are made concerning salient facts. Moreover, it aided exploratory attempts to construct relationships among facts relevant to the case, i.e., to perceive interactions among elements and to begin to establish the significance of these complex relationships.

At this stage of inquiry, however, use of the framework produced diminishing returns. This is particularly true regarding the part of the case study that dealt with dissemination and adoption of the Minicourses. In effect, the complexity of the case defied various attempts to conceptualize and represent it. We tried to use graphical "systems" diagrams to order the domain under study, but those graphics true to the complexity of the case became cluttered and served to confuse rather than enlighten, whereas our attempts at simple representation lacked sufficient fidelity to the facts to be valuable. The problem faced, then, was one of depicting a multidimensional reality in two-dimensional space. The variables of policies, agents, activities, and resources, each with potential subcomponents, had to be arrayed in varying relations to one another along the dimension of time (which implies the representation of changes in these elements and their interactions), and across several foci of analysis (at the federal level, the regional level, and the local level). After reviewing a number of graphic devices, we concluded that in this case the problems of using the framework to represent a topic outweighed the advantages. We shall, therefore, present what is essentially a narrative that keys policies mentioned in the text to a single chart (Fig. V-1), which lists the relevant information about each policy.

Finally, we judge (although this is difficult to demonstrate) that the framework aided the process of interpreting and drawing conclusions about this instance of EKPU development. The framework helped focus attention on significant aspects of the case that might well have gone unnoticed. In addition, formal policy played an important role that we are able to demonstrate here. In sum, our experience with this topic indicates that there are limiting instances of the framework's use in depicting a complex EKPU activity, but that it is nevertheless helpful in collecting data, in conceptualizing the policy-related dimensions of that activity, and in reaching conclusions about the administration of an EKPU activity.



*Development Stages

1. Conceptualization and Planning
2. Preliminary Product Devlopment
3. Preliminary Field Testing
4. Preliminary Product Revision
5. Main Field Testing
6. Main Product Revision
7. Operational Product Testing
8. Operational Product Revision
9. Dissemination Planning
10. Product Dissemination

Note: The symbols "FWL" and "NIE" indicate the agent who terminated development of the Minicourse in each case.

FIGURE V-1 DEVELOPMENTAL HISTORY OF MINICOURSES

III SUMMARY OF FINDINGS

Research and Development of Minicourses

The Minicourse, a teacher training product developed at FWL, is based on Stanford R&D Center's research and development of microteaching. Each Minicourse focuses on one microteaching topic, such as asking effective questions or tutoring in math. The materials are primarily a set of films in which several master teachers demonstrate effective skills, handbooks, and directions for the teacher and coordinator. Use of a Minicourse entails reading the materials, viewing the film, and then teaching several practice lessons which are videotaped. The teacher reviews each lesson on videotape and evaluates his/her efforts at mastering the Minicourse skills based on criteria set forth in the printed materials. The theoretical concepts of modeling and feedback form the basis for this approach to teacher education. Seven Minicourses were eventually marketed by Macmillan Company, the commercial distributor, and two others are now being marketed by other agencies.

Table V-1 summarizes the chronology of key events in the development and marketing of the Minicourses, and Figures V-2 and V-3 show the principal flows and agents. Minicourses represent almost classic RDDA development. The process started with the opening of the R&D centers in 1965 and the regional educational laboratories (RELs) in 1966. Funding came from USOE to both the Stanford R&D Center and FWL; these two institutions then collaborated, with the information flow from the Stanford R&D Center to FWL becoming the basis for Minicourse development.

This collaboration was both formal and informal. The head of the Stanford R&D Center, Dr. R. Bush, sat for several years on the now

Table V-1

CHRONOLOGY OF KEY EVENTS IN THE DEVELOPMENT OF MINICOURSES

Year	Key Events
1963	Microteaching was developed as part of the Stanford University teacher training program.
1965	Stanford R&D Center was founded under the Cooperative Research Program of USOE, with $3.5 million for the first five years. Microteaching was an important focus for the Center's early research.
1966	FWL was established under Title IV of ESEA through a Joint Powers Agreement. A needs assessment of the region served by FWL and a conference on instructional methods and teaching behavior helped establish in-service teacher training as one of the top four priorities.
1967	The Teacher Education Program was started at FWL, and Minicourse 1 was initiated.
1968	Copyright policy was changed to provide limited copyright coverage for items such as FWL produces, particularly Minicourses.
1969	FWL signed a contract with Macmillan Company to begin work on production, promotion, and distribution of Minicourses. Seven Minicourses were licensed to Macmillan over the next six years. Certain contractual stipulations required Macmillan to promote and sell Minicourses in toto and to allow review of all promotional materials by FWL.
1969	The Utilization Division established at FWL signified FWL's active entry into the field of dissemination and utilization.
1970	A new copyright policy established in the Federal Register allowed developmental copyright privileges and generally offered further protection to potential sellers of FWL products.
1970	Macmillan released the first Minicourse. Over the next several years, a number of factors influenced sales. The interpretation of Title I requirements by states had an impact: in Los Angeles, Minicourses were purchased under Title I; in Wisconsin, Minicourses were not allowed under Title I. Cooperative funding arrangements stimulated purchase. At the district level, the policy and budget allocations for in-service training and release time for teachers had an impact. The dissemination efforts by Macmillan and later by FWL were instrumental in sales/rentals.
1971	FWL's Utilization Division made several efforts to stimulate dissemination of Minicourses. Under a separate contract with NCEC, six demonstration centers were set up around the country, were operated in 1971-72, and were reasonably successful in provoking interest in sales of Minicourses (Nos. 1, 2, 5, 8, and 9 were used at the centers). In another effort with the Teacher Corps, three centers were established to test patterns of utilization.
1971	Also in 1971, the Educational Testing Service (ETS) evaluation of educational products selected two Minicourses (Nos. 1 and 5) from among the nine final products that survived evaluation. The principal effect of this evaluation on the Laboratory and the Minicourse was informal; it probably enhanced the reputation of FWL and influenced the flow of funds to the Laboratory, particularly with regard to the contract for the Minicourse demonstration project.
1972	NIE was established. The principal shifts in priority and funding occurred here. Based on the report by Panel C for NIE, guidelines were sent to FWL requiring the following changes: (1) begin systematic evaluation of effects of Minicourse training on student outcomes, (2) complete products that have reached the main field test stage, and (3) terminate development on all other Minicourses. These requirements caused a profound rearrangement at FWL: personnel were reassigned, hired, or fired. There was also a switch to program purchase, and separate contracts were negotiated for the work of evaluation. One contract for 1973-75 covered the chief work of evaluating pupil outcomes based on Minicourse training. The revised Resource Allocation Management Plan (RAMP) reflected the work to be done and the funds allocated for each part of the work.
1972	FWL made several other distribution attempts. Paul Amidon Associates distributed the Minicourse, "Interaction Analysis," revised under Dr. N. Flanders at FWL; negotiations were conducted with the Agency for Instructional TV for "Discussing Controversial Issues"; NEA arranged to distribute "Role Playing in the Upper Elementary Grades;" and FWL cooperated with the Organization for Economic Cooperation and Development (OECD) in an experiment entailing transfer of Minicourses to several European universities.
1974	NIE distributed an RFP for a study of dissemination of educational products. FWL submitted a proposal but did not win the contract, which effectively ended the Laboratory's efforts to disseminate Minicourses.
1975	Funding for Minicourse research was cut by 15%. Certain projects were terminated or scaled down. The final report on the effects of Minicourses on students was scheduled for the fall of 1975.

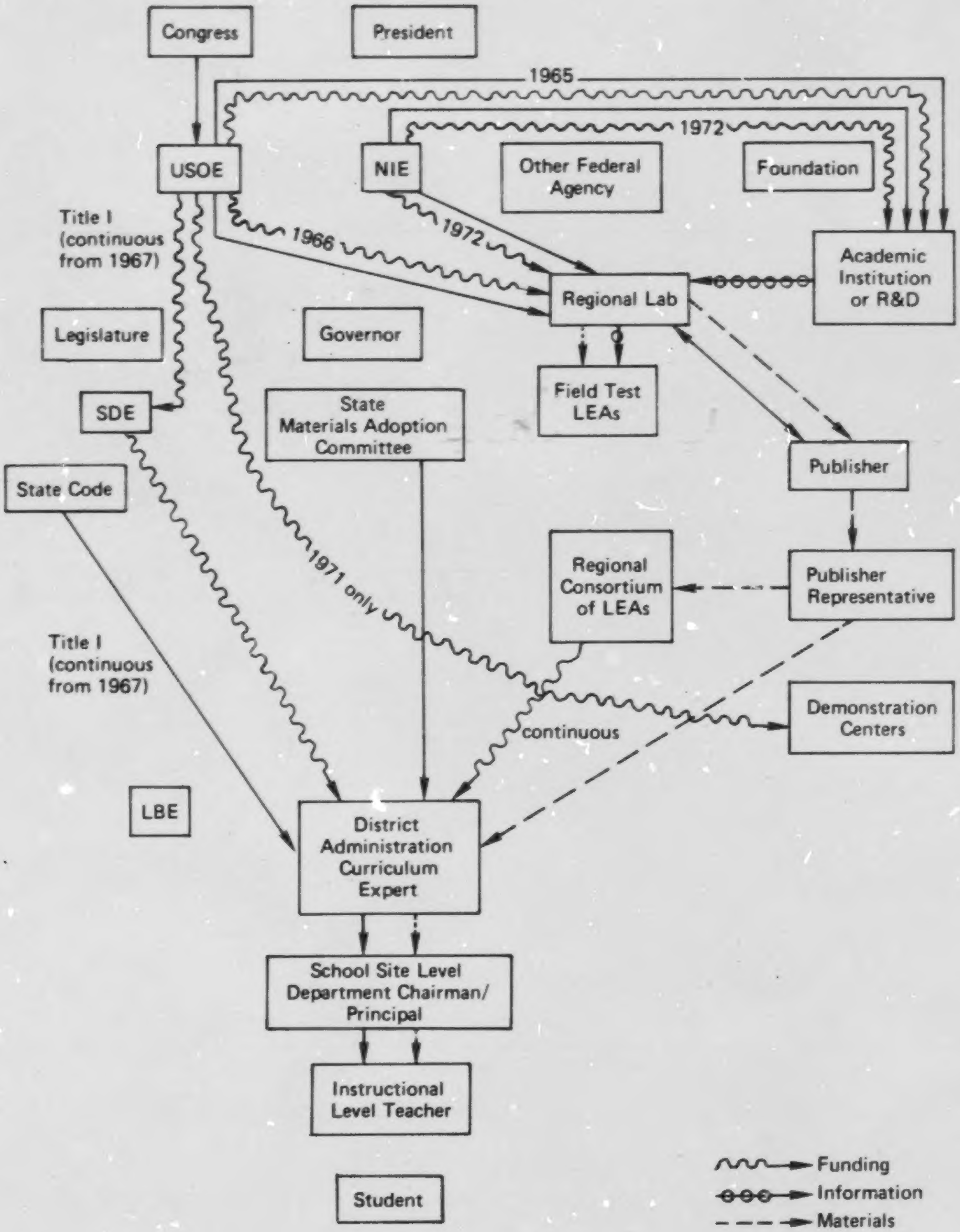

Congress
President
1965
1972
USOE
NIE
Other Federal Agency
Foundation
Title I (continuous from 1967)
1966
1972
Academic Institution or R&D
Regional Lab
Legislature
Governor
Field Test LEAs
SDE
State Materials Adoption Committee
Publisher
State Code
1971 only
Regional Consortium of LEAs
Publisher Representative
Title I (continuous from 1967)
Demonstration Centers
continuous
LBE
District Administration Curriculum Expert
School Site Level Department Chairman/ Principal
Instructional Level Teacher
Student
Funding
Information
Materials
Authority

FIGURE V-2 KPU AGENTS AND FLOWS IN THE RESEARCH AND DEVELOPMENT OF THE MINCOURSE METHOD OF TEACHER RETRAINING

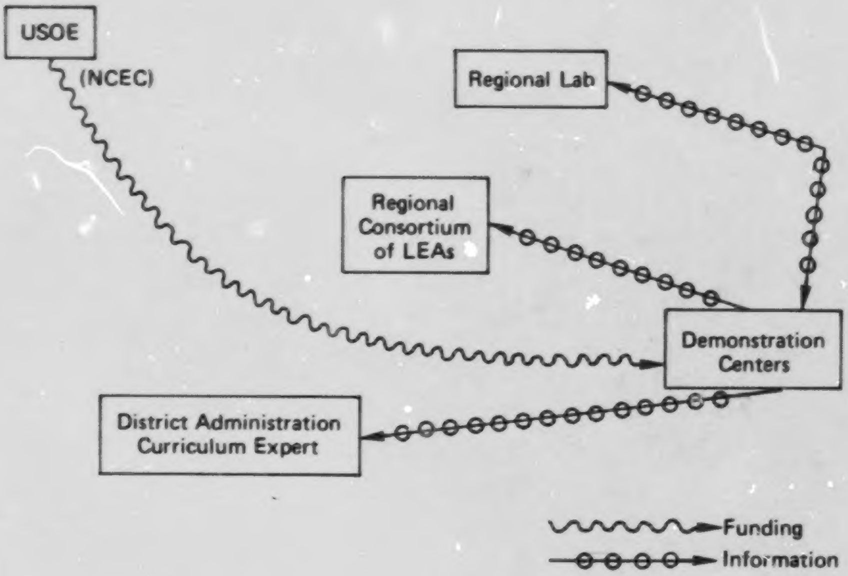

USOE
(NCEC)
Regional Lab
Regional Consortium of LEAs
Demonstration Centers
District Administration Curriculum Expert
Funding
Information

FIGURE V-3 PRINCIPAL FLOWS AND AGENTS IN THE DISSEMINATION AND ADOPTION OF MINICOURSES

defunct FWL Executive Panel, which was charged with reviewing and selecting programs and projects for development. A second formal element was the several joint committees that worked on the development of the initial Minicourse materials. Informally, there was a good deal of correspondence and mutual advising back and forth, based on a number of personal-professional relationships.

At its inception, FWL conducted a needs assessment in the region it served. This assessment became a principal input to the Executive Panel deliberations that determined the Laboratory's early programs. The in-service education of teachers emerged as a critical [illegible], and consequently the Teacher Education Program was created under Dr. Walter Borg, with Minicourse development being the principal task of this division.

Under FWL policy, the principal investigator had wide discretion in the conduct of his program. In the case of Minicourses, Borg instituted a careful developmental sequence that called for drawing up an initial plan with supporting theory and research, producing each course in preliminary form, sending it through three field trials with revisions after each, and finally releasing the course for distribution. The 27 steps in the developmental sequence (as noted by P. Langer in a paper presented to the 1969 Convention of the American Educational Research Association) are as follows:

- Research and information collecting
    1. Review literature and prepare report.
- Planning
    2. State the specific objectives or behavioral changes to be achieved and plan a tentative course sequence.
- Development of preliminary form of product
    3. Prepare scripts for the instructional lessons.
    4. Prepare teacher handbook and evaluation forms for use in the microteach evaluation.
    5. Prepare instructional tapes: record, edit, and dub.
    6. Prepare model tapes: record, edit, and dub.
- Preliminary field testing
    7. Conduct preliminary field test in 1 to 3 schools, using 4 to 12 teachers.
    8. Evaluate results of field test.
- Main product revision
    9. Revise scripts based on preliminary field-test results.
    10. Revise handbook and evaluation forms and print for main field test.
    11. Revise instructional tapes: record, edit, and dub.
    12. Revise model tapes: record, edit, and dub.
    13. Prepare follow-up package to be used by teachers during nine months' completion of the course.

- Main field testing

  14. Conduct field test using a sample of 30 to 75 teachers.

  15. Collect precourse tapes and postcourse tapes of the classroom behavior of teachers participating.

  16. Collect delayed postcourse tapes of participating teachers from four to six months after completing the course.

  17. Evaluate main field-test results to determine if the course meets the specific behavioral criteria established for the course.

  18. Distribute the evaluated follow-up package.

- Operational product revision

  19. Revise course for operational field test.

  20. Prepare complete implementation package including all material needed by a school to conduct the course without outside help.

- Operational field testing

  21. Train operational test coordinators.

  22. Conduct operational field test.

  23. Evaluate operational field-test results.

- Final product revisions

  24. Make final revisions in the Minicourse before mass distribution of the course for operational in-service use in the schools.

- Dissemination and distribution

  25. Disseminate and distribute course for use.

- Report preparation

  26. Prepare and distribute research and development report, giving results of all field testing of the Minicourse.

- Implementation

  27. Implement course in the schools.

The criteria used in the field tests were changes in teacher behavior. This demanding quality control procedure was usually effective in ensuring the excellence of final products, and an examination of Figure V-1 shows that a significant number of Minicourses failed to pass muster at one stage of development and so were rejected. In addition to the review procedures developed by Borg, there were a number of Laboratory policies affecting the development of each Minicourse. In brief, each Minicourse received a review by FWL's Director, Executive Panel, and Board of Directors at the proposal stage and reviews at several developmental stages by the Program Director, culminating in a final review by the Director and the Executive Panel.

Each year Borg, in consultation with his staff, prepared a program plan outlining the work to be accomplished. After a series of internal reviews and revisions, this plan was incorporated in the master plan sent to USOE as the basis for renegotiation of the Laboratory contract. Although Borg controlled this budget-setting function, the initial choice of a teaching skill around which to develop a Minicourse was open to anyone in the division. Preliminary plans were submitted to the Executive Panel for approval (as indicated above), followed by development and review procedures. However, FWL was criticized for this aspect of Minicourse development; e.g., with no overall plan of development, the skills appeared unrelated to one another and essentially isolated from other aspects of teaching behavior. Responding to this criticism in 1972, FWL developed a long-range program plan based on identification of "competency clusters," i.e., groups of related teaching skills. With the switchover to NIE, however, this approach was dropped and has not been further pursued at the Laboratory.

Dissemination and Adoption of Minicourses

Confronted with the problem of how to market and distribute their Minicourses, FWL decided to select a commercial publisher to carry out this aspect of the work. A key agent in this decision was FWL's Fred Rosenau, whose background in the publishing industry provided expertise in the Laboratory's negotiations with the ultimate publisher, the Macmillan Company.

FWL sent out an RFP and on this basis selected Macmillan (the only publisher to respond). A principal concern at this juncture was copyright protection, then lacking for FWL products. However, in 1968 the Laboratory was instrumental in changing USOE copyright guidelines so that copyright protection could be obtained. This facilitated the contract with Macmillan in 1969, and over the next several years seven Minicourses were licensed to Macmillan. The principal policies regulating this exchange were the copyright laws, and the contracts between FWL and Macmillan.

Gradually, FWL realized that Minicourses were a difficult product to disseminate, and that a publishing company whose main sales were textbooks would have trouble selling an innovation requiring use of audiovisual media for in-service training purposes. The Laboratory then became actively engaged in dissemination and utilization activities, their principal effort being the Minicourse demonstration centers project funded under contract to NCEC in 1971. The six centers established attracted many visitors and stimulated interest and sales/rentals of Minicourses during the year they were in operation.

A major event in the development of Minicourses occurred with the establishment of NIE in 1972. New guidelines from NIE based on their Panel C recommendations shifted priorities at the Laboratory from further development and dissemination efforts to an evaluation of existing

Minicourses by using student outcome measures. A new contract with NIE extending from 1973 through 1975 determined the nature and scope of this effort. This new policy direction had an extensive impact on FWL and meant that a number of Minicourses in various stages of the development sequence were simply shelved (see Figure V-1). Finally, in 1974, NIE put out an RFP for a dissemination project to which FWL responded but failed to win.

The new direction dictated by NIE meant gearing up for a research program, which the teacher education division at FWL, proceeded to do. Three developmental team directors and four field coordinators who supervised Minicourse testing activities were released. Principal upper level staff remained to organize the research effort (Drs. Flanders, Ward, Berliner, and Gall), and other researchers were hired. From 1972 to the present the research program using student outcomes has been the main activity of the teacher training program. The final reports are due in the fall of 1975.

Under the revised work plan submitted to NIE in 1972, there was provision to carry out some work in progress on the Minicourses, and this work continued beyond 1972. Under Dr. Flander's leadership, the Minicourse on interaction analysis was modified and licensed to Paul Amidon Associates for distribution. In this case, the Laboratory experimented with a reduced Minicourse kit that did not include a film and that could be sold in parts. The Minicourse "Discussing Controversial Issues" was licensed in 1975 to the Agency for Instructional Television to distribute after a protracted series of negotiations, and NEA became interested in completing development of "Role Playing in the Upper Elementary Grades." In this latter case, the Laboratory did not have the means to finish the development task, and so it simply turned over this course to the NEA without securing any contractual obligations.

An interesting spin-off of the Minicourse program has been a project, initiated by OECD/CERI[*] at conferences in 1971 and 1972, that is still in progress at several locations. This project is an experiment in the international transfer of several Minicourses to nine universities in seven European countries. FWL cooperated in this project, which received financial support from OECD/CERI. Each country developed one or more Minicourses using the developmental procedures established by FWL. The project produced some interesting evidence on the viability of international transfer of educational innovations (see reference section for reports on the results).

A multitude of factors at two levels influenced the actual sales and use of Minicourses: At Level I are factors directly relating to an LEA's purchase or rental of Minicourses; at Level II are factors that affect Macmillan's decision to market Minicourses and that are likely to affect any future publishing firm's decision to adopt a particular innovation.

An accounting scheme for these factors is shown below. Following each factor is a series of numbers; these are ratings from 1 to 3 on four variables, as follows:

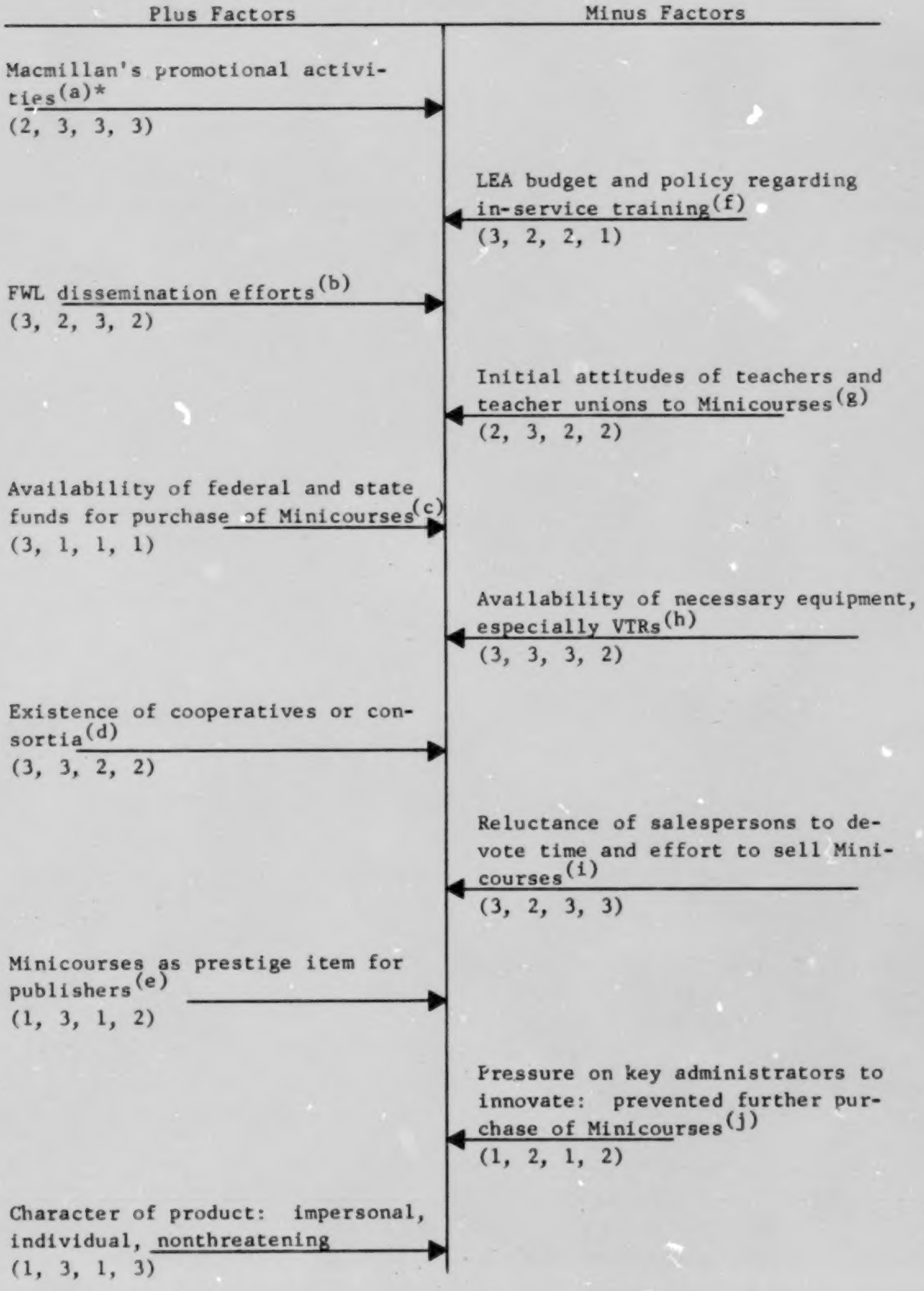
Ratings[†]	Variables
1 - Low 2 - Moderate 3 - High	Magnitude of Factor: How powerful was the factor in influencing the decision in question? How Easy to Change: How amenable to change is this factor, particularly changes initiated by NIE? How Well Understood: How well do we understand the way in which this factor operates across different settings and in interaction with other factors? How Nomothetic: Is this a factor common to all, many, or only a few settings? Is its influence based on some institutional arrangement?

---

[*] Cooperative Educational Research Institute.

[†] Ratings are for illustrative purposes only.

LEVEL I FACTORS



Plus Factors

Macmillan's promotional activities(a)*
(2, 3, 3, 3)

FWL dissemination efforts(b)
(3, 2, 3, 2)

Availability of federal and state funds for purchase of Minicourses(c)
(3, 1, 1, 1)

Existence of cooperatives or consortia(d)
(3, 3, 2, 2)

Minicourses as prestige item for publishers(e)
(1, 3, 1, 2)

Character of product: impersonal, individual, nonthreatening
(1, 3, 1, 3)

Minus Factors

LEA budget and policy regarding in-service training(f)
(3, 2, 2, 1)

Initial attitudes of teachers and teacher unions to Minicourses(g)
(2, 3, 2, 2)

Availability of necessary equipment, especially VTRs(h)
(3, 3, 3, 2)

Reluctance of salespersons to devote time and effort to sell Minicourses(i)
(3, 2, 3, 3)

Pressure on key administrators to innovate: prevented further purchase of Minicourses(j)
(1, 2, 1, 2)

Plus Factors	Minus Factors
	Administrative organization at local level: no one was in charge of in-service training(k) (2, 1, 2, 3)
	Resistance of teacher training institutions to Minicourses: Macmillan as K-12 distributor(l) (3, 2, 2, 3)
	Character of product: "hands-on"(m) (2, 2, 1, 3)

(a) Macmillan's promotional activities consisted of descriptive brochures and catalogs for mailing, preview kits mailed to LEAs on request for a six-week period (containing films, materials, and so on), exhibits at appropriate conventions, and demonstrations around the country.

(b) Dissemination efforts included establishing six demonstration centers around the country in 1971-72, field test sites, a cooperative project with Teacher Corps in three sites in 1971-72, and some cooperative activities with a consortia of laboratories including CEMREL, NWREL, and Wisconsin R&D.

(c) Primarily Title I funds were used, e.g., in Los Angeles, but in Wisconsin purchase of Minicourses was not allowed under Title I. In Texas, Minicourses were purchased by federal funds given to the state for the Texas Education Renewal Center program. When no outside funds were available, there was a diminished chance that Minicourses would be bought.

(d) Cooperatives were informal arrangements of school districts that put up funds for purchase of materials and products that could be shared. These are known as BOCES (Board of Cooperative Educational Services) or CESA (Cooperative Education Serivce Agency). Salesmen could successfully do business with these groups because they could sell in some volume and had a central authority with which to deal.

(e) Although the prestige factor may be minor, the Macmillan representative mentioned that a research-supported innovation such as Minicourses could enhance Macmillan's prestige and gain an audience for other products (which might result in the purchase of texts, not Minicourses).

(f) A crucial factor was whether there were adequate funds in the budget for in-service training. Teachers usually used Minicourses only during in-service hours which meant release time and funds for substitutes--a hidden cost of Minicourses.

(g) Teachers and unions felt a certain reluctance to accept Minicourses. Do Minicourses presuppose that teachers cannot teach well or are incompetent? This hidden agenda item made it difficult for administrators to advocate Minicourses to teachers. Moreover, at teacher training institutions, professional educators rejected Minicourses because they had developed their own methods of teacher training.

(h) Availability of equipment was a key difficulty. At the time, many districts lacked access to the necessary media.

(i) In a textbook-dominated industry, most salespersons do not have the requisite skills or information to sell media programs, and they feared that introduction of Minicourses with texts would create the impression that teacher training was necessary to the use of texts and that this would discourage purchase of the text. Moreover, selling Minicourses was too time-consuming; it required that equipment be set up, films run, elaborate explanations be given, and so on. Also, it was an effort to find the several persons who could make the decision on Minicourse adoption; hence, too great an investment of time relative to sales was required.

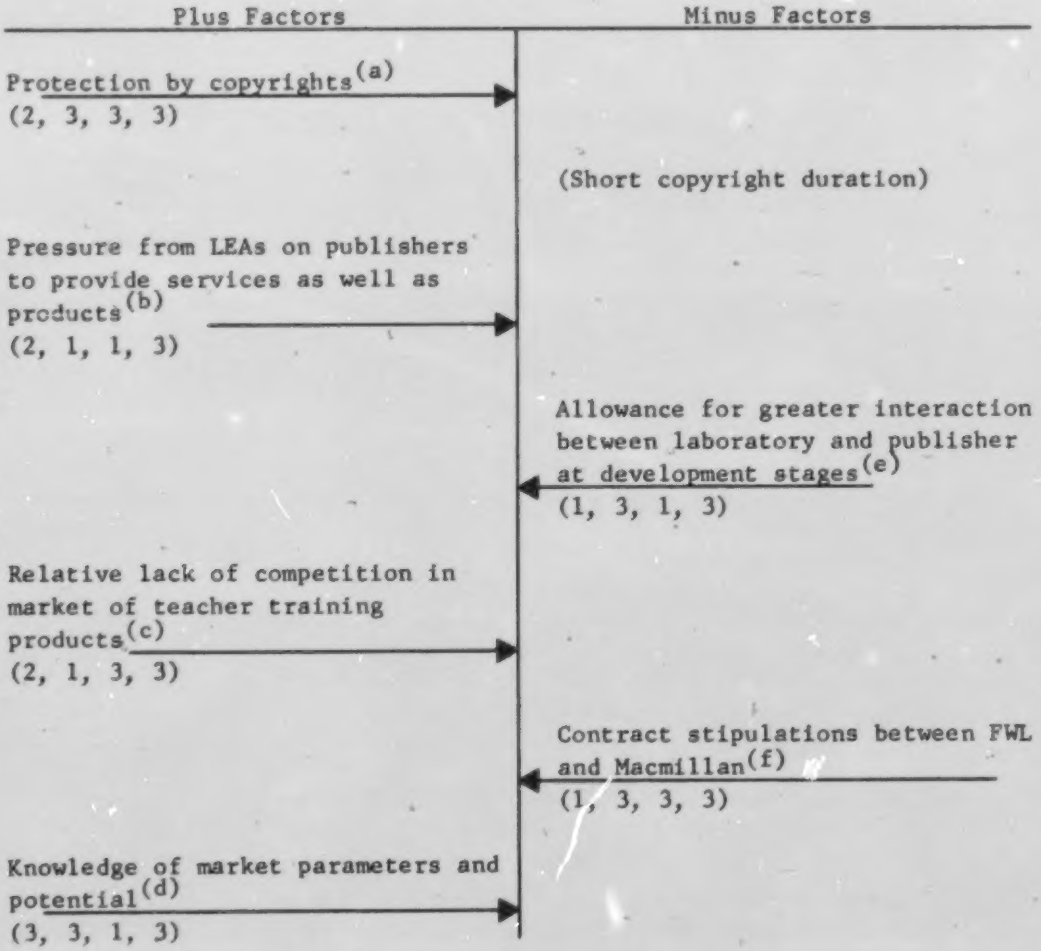
(j) Even when there was customer satisfaction after initial purchase or rental of Minicourses, administrators frequently did not purchase more of them. A Macmillan representative attributed this to the pressure on certain administrators to continue innovating. When Minicourses became "old hat," innovative administrators lost interest.

(k) Macmillan frequently found that no LEA agent was responsible for in-service training. Thus, they found no one with the interest or the authority to purchase the product. Furthermore, even if an LEA did purchase the Minicourses, no one had administrative responsibility for seeing that it was used by practitioners.

(l) Macmillan deals primarily with elementary and secondary materials. Free Press has the college market within the company, so a sizable part of the market was ignored because of the organizational structure of the publishing company [see also (g) above].

(m) The assumption that Minicourses could be used without demonstration and assistance proved unfounded. When assistance was available at the LEA in the form of an administrator to push Minicourses and to aid in their use, they were more successful and more widely used.

LEVEL II FACTORS



Plus Factors	Minus Factors
Protection by copyrights[a] (2, 3, 3, 3)	
	(Short copyright duration)
Pressure from LEAs on publishers to provide services as well as products[b] (2, 1, 1, 3)	
	Allowance for greater interaction between laboratory and publisher at development stages[e] (1, 3, 1, 3)
Relative lack of competition in market of teacher training products[c] (2, 1, 3, 3)	
	Contract stipulations between FWL and Macmillan[f] (1, 3, 3, 3)
Knowledge of market parameters and potential[d] (3, 3, 1, 3)	

Plus Factors	Minus Factors
	Incentives to explore new markets(g) (2, 3, 1, 3)
	Federal policy respecting relations between laboratories and distributors(n) (1, 3, 1, 3)

(a) Before 1968, products developed at FWL were under public domain ruling. In 1968 and 1970, new copyright regulations in the Federal Register extended protection to private firms for limited periods of time. In future, however, more extended coverage probably will be needed if the private sector is to continue promoting, producing, and selling laboratory products.

(b) Pressure from LEAs was quoted as a chief reason for marketing Minicourses. LEAs wanted services such as consultation and more work directly with teachers. Macmillan may have interpreted this pressure as an auspicious sign for Minicourses.

(c) There was no market for teacher training and it certainly was not a line item in most LEA budgets, but talk of teacher education was in the air according to the Macmillan people interviewed.

(d) Apparently, Macmillan gambled that a new market was opening and that chances were good for outdistancing competitors to this new source of sales. As far as can be determined, however, Macmillan had no data (e.g., surveys and market research) on the feasibility of teacher education materials.

(e) Greater interaction between publisher and laboratory was insignificant in regard to Minicourse adoption, but Macmillan indicated that in future they will require greater input in product development before adopting a product.

(f) Contract stipulations might be placed on either the plus or minus side. FWL required that they review all promotional materials put out by Macmillan and stipulated that Minicourse materials not be sold separately. Lengthy negotiations resulted in a series of contracts, so FWL stipulations did not negatively affect adoption; in general, this policy will be crucial in any future dealings between laboratories and publishing agents.

(g) The publishing industry has no great resources for promotion and for the careful, systematic development of new markets. Without incentives to take on innovative products and programs, they are unlikely to do so. Such incentives may take the form of contractual obligations for support on the part of the federal government.

(h) Recently, a provision has been made for a laboratory to choose a distributor to work with before government funding. In the past, there was an unwritten policy against collaboration of this sort. In the future, close cooperation may exist between laboratores and publishing firms during all phases of development and dissemination.

Case Studies of Adoption

To complete an examination of the total configuration of agents, policies, resources, and activities for this case, a survey of circumstances surrounding adoption of Minicourses at the local level is required. Following are four case studies of local adoption that can actually stand by themselves, but that also suggest interactions across levels of analysis. These cases are meant to illustrate the range of policies and agents in this topic rather than to represent the full range and variation of circumstances in local adoption of an innovation.

Case I: The Chicago Public School System

In Chicago, one of the district superintendents became interested in Minicourses, and through his efforts they were introduced into a number of schools in the Chicago system.

In 1969, the superintendent was invited to a conference held by FWL in Illinois. He left the conference convinced that Minicourses were the best teacher training materials available. His determination to obtain Minicourses for Chicago teachers rested on a judgment that to improve education meant to improve teaching. He had been seeking ways to do this, and the FWL Minicourses appeared to be the best option. Through his efforts, five of the Macmillan-produced Minicourses were purchased over the next two years.

The task of introducing Minicourses into his district proved complex and demanding. Use of Minicourses required funds for three items: software (Minicourse films and manuals), hardware (VTRs), and salaries for substitute teachers, freeing regular teachers for in-service training. This last requirement was necessary because of the particularly strong and active teacher's union in Chicago. There was no possibility that teachers would work with the Minicourses on their own time because the union would regard this as an encroachment on teacher rights--an extra, unnegotiated responsibility. Use of Minicourses would have to be during school hours, based on teacher release time and coverage of their classes.

The Chicago budget was set up so that funds for VTRs came out of the budget for furniture and equipment, and software materials out of the budget for instructional materials. Since there was not enough money in either budget to cover the necessary purchases, the superintendent adopted a twofold strategy. First, he worked to change the state legislative guidelines defining instructional materials; second, he attempted to include Minicourses on the list of programs eligible for purchase with Title I funds. Each of these maneuvers entailed a series of actions over the next several years.

In Illinois, local school boards receive state appropriations that form the basis for the district budget. Governing these funds are provisions defining how and for what they may be spent. At the time, the definitions governing instructional materials were antiquated and did not recognize the newer kinds of educational materials being developed. To have these guidelines changed, the superintendent worked with another key actor in the Chicago system, the superintendent charged with legislative oversight and lobbying at the state and federal levels. This administrator worked full time representing the Chicago public schools in Springfield and in Washington, using input and recommendations from committees within the school system. By this means, the district superintendent was able to effect the changes in the legislative guidelines that allowed purchase of Minicourses from the instructional materials budget. However, this change was not enough; the need was for a funding source that could cover the whole program: software, hardware, and teacher time. To get this, the superintendent turned to the Title I program.

Under Title I of ESEA, schools with "disadvantaged" children (as defined by Title I regulations and guidelines) receive per capita appropriations that may be used for the purchase of programs on a list approved by the state board of education. Title I requires that advisory councils of community members make the decisions on what each school will purchase. Consequently, the superintendent first had to obtain permission from the state board of education to place Minicourses on the approved list of Title I programs. Next he worked with the community councils to encourage selection of Minicourses as the basis for staff development. Since these councils were most interested in innovations that entailed use of community members, such as programs employing teacher aides, persuasive argument was necessary. Eventually, the superintendent was successful in securing funds using this tactic.

The superintendent adopted a few other strategies as well. For example, he introduced a nonquota teaching position into two schools to provide class coverage so that teachers could use the Minicourses. Each school was allotted a specified number of teachers, based on a fixed student/teacher ratio, so he smuggled part-time positions into these schools to provide the necessary coverage. Subsequently, 200 new positions were negotiated, i.e., a reading teacher was assigned to each of the 200 elementary schools in Chicago with the lowest reading scores, and this extra staff allowed for class coverage as well. Finally, he had the maintenance staff erect partitions in several rooms to provide private space for viewing the videotapes. This he felt was necessary to encourage teacher use, and to alleviate any suspicions that administrators might use the tapes for staff evaluation purposes.

In addition to the determined efforts by this single agent, FWL was instrumental in the adoption and utilization process. For two years, representatives from FWL consulted with the superintendent and worked with his teachers. Moreover, two demonstration centers in the Chicago area created interest in Minicourses and brought their potential to the attention of teachers. The district superintendent considered this assitance from FWL to be invaluable.

Case II: Montgomery County, Maryland Office of Education

In the summer of 1970, Dr. Bruce Joyce of Teachers College, Columbia University, alerted staff in the Montgomery County education office to a new teacher training product, the Minicourse. (Dr. Joyce worked as an occasional consultant to Montgomery County and later worked at FWL as a visiting scholar.) The county board became interested, contacted the Laboratory, and agreed to participate in the operational field testing of several Minicourses. In return, they were allowed to use the Minicourses, and subsequently purchased all of those marketed by Macmillan.

During their association with FWL, the county board also explored the possibility of establishing a team of local developers to create Minicourses. FWL initiated this idea and suggested it to USOE, but the project was never attempted. The sequel, however, was that Montgomery County decided to develop their own "Minicourse." The topic of interest was parent/teacher conference skills, and by spring of 1973 a pilot version of this course had been prepared, consisting of a handbook of theory and suggestions, five taped lessons, and two tapes of model conferences (tape rather than film was the instructional medium in this case). The developmental sequence used at FWL was followed, but no validation research was conducted. Montgomery County did conduct some evaluation of this product, however, using the following criteria: Do the teachers use the skills learned in actual conferences? Do conferences meet with the approval of parents?

During its first year, this course was used in Montgomery County at roughly the same rate as the commercial Minicourses. This local development project, then, is considered a success, but Montgomery County staff report they will probably not develop another course. The effort and resources entailed were considerable, and the county feels that in the future such activities would be too demanding.

Case III: The Houston Unified School District

The Houston School District has purchased and used all seven of the Minicourses sold through Macmillan. In this case, it is the funding arrangement and factors affecting use or nonuse that are of interest. Texas has recently established a number of regions, each served by a regional service center. The funds that each school district in a region contributes to the regional center are matched by the state. All districts belong to a region, but three districts--Houston, Dallas, and Dallas County--are large enough to provide their own services. Consequently, they have only a satellite relationship with the regional areas.

Macmillan introduced Minicourses to the Houston district through a demonstration held for Harris County schools (in addition to regions, there are also county offices of education). Specialists from the Department of Instructional Services recommended purchase of the Minicourses, and the director of the Department approved. Based on their relationship with Region 4, Houston purchased the Minicourses with regional matching funds.

Since 1970, Houston has tried a number of staff development arrangements to encourage Minicourse use. Initially, teams of "teaching strategists" moved from school to school consulting with teachers, and provided service and in-service training. More recently, a "mini university" set up in the district offered courses for teachers. In return for attending these after-school courses, teachers received credit toward "compensation days," which was time off. Most recently, a new staff development program has discontinued the compensation-day concept, and now teachers and principals may individually request Minicourses for use.

Other factors, in addition to teacher strategists and the mini university, encouraged Minicourse use, e.g., needs assessments conducted by school principals, which resulted in programs for teachers of those schools. A variety of factors, however, were reported by the media specialists in Houston as inhibiting adoption of Minicourses:

- Lack of VTRs.
- Lack of an agent to promote use.
- Teacher attitude, e.g., disappointment for those teachers who wish immediate application, or lack of motivation for some teachers to follow a Minicourse to completion.

Houston administrators saw group process as a crucial aspect of Minicourse use. Participating in Minicourse training as a group provided better motivation and social reinforcement for teachers. The best use strategy, they felt, was a mixture of individual work (e.g., viewing tapes of one's own performance) and group feedback and support (e.g., discussing the results of this viewing in a group).

Case IV: Alameda County, California

The Alameda County Office of Education is located in the region served by FWL and expressed an early interest in the Minicourses after a demonstration conducted by the Laboratory; county administrators arranged for loans of Minicourses for the first year, followed by purchase in the second year. The funds came from the county curriculum materials budget, and each Minicourse was subject to an informal review process established by the county; i.e., the Minicourse was sent to teacher evaluation committees in the various districts served by the county. Based on their reports, the county agent made recommendations to the County Purchasing Committee, and if funds were available, the materials were purchased.

The County Office stimulates use in a number of ways:

- FWL in connection with Alameda County has arranged for credit to be offered for Minicourse training through St. Mary's College. School principals coordinate this effort, which is optional but ties in the salary schedule.
- Minicourse films are delivered directly to the school.
- In some cases, release time is provided by the schools for teachers to engage in Minicourse training.

According to the county agent, the informal communication network among principals in the county is also important in fostering Minicourse use.

The chief impediment has been the unavailability of VTRs, but as more districts obtain this equipment, Minicourse use has risen. Alameda County has now used six of the Minicourses produced, and apparently the loan/purchase option has been a favorable arrangement between FWL and Alameda County, and has encouraged the trial use of Minicourses before actual purchase from Macmillan.

Summary of Adoption Case Studies

Most striking, perhaps, about the case studies described above is the diversity of circumstances encountered. Any generalizations must be balanced against the idiosyncratic features peculiar to each case of adoption and those that--based on these few--should be expected elsewhere. Nevertheless, on the basis of these cases one might conclude that:

- FWL's participation in dissemination and utilization was a significant factor in Minicourse adoption, perhaps even more than Macmillan's promotional activities. FWL staff possessed an interest and a level of expertise that made their contacts with the field particularly important.
- Clearly, adoption and use of Minicourses depended on the advocacy of at least one agent at the local level. This was most clear in the Chicago case where, without the determined activities of a district superintendent, the Minicourses would probably not have been adopted.
- Funding potential is a critical aspect of any adoption; this was particularly true for the Minicourse, an expensive innovation.
- The active establishment of incentives encouraged use. Such incentives included units toward salary increases, release time, course credit toward degree, pressure from administrators, or the support of group processes. The Minicourse probably received little use in districts in which it was simply advertised for use on an individual basis and with no particular incentive.

IV RECOMMENDATIONS

A variety of issues would be interesting and informative to study further or to monitor, so as to provide data for other uses. These include:

- Complexity of the product with respect to potential problems of distribution and installation/use.
- Availability of funds for purchasing an innovation. Can it be purchased within existing LEA budget guidelines?
- Extent to which there is ample feedback from the field in all phases of product development and utilization. In particular, this may entail closer working arrangements with commercial sales forces to provide information on needed products, likelihood of use, and so on.
- Size and parameters of market for a new product or program.
- Time lag from development to dissemination to use. Programs should not be cut off before adequate time has been given for proper dissemination and utilization efforts.
- Various linking agencies that could serve as dissemination/distribution/installation outlets.
- Key constituencies likely to support or to oppose a particular innovation--such as teacher unions, minority parents, and the like.
- The degree to which the copyright officer at NIE and other similar agencies sponsoring development work are willing to use a high degree of discretion in their interpretation of the copyright guidelines, so as to maximize the likelihood of effective dissemination.

Insofar as actual recommendations, however, we have but two. First, we recommend that NIE find some way to monitor the numbers and types of agents at the local and regional levels that are authorized or given resources to seek out, try out, and recommend new curricular innovations--

both for in-service training and for use in classrooms. The findings of this case study indicate that this information would be a most valuable addition to the DATABOOK monitoring effort, because of the degree to which this agent is a necessary precondition to highly effective dissemination/utilization.

Second, we recommend that a comparative cost/benefit policy analysis be done regarding various modes of dissemination that have been tried or that are envisioned by NIE. For instance, in this case study we learned that the National Center for Educational Communications (NCEC), which for several years existed within the U.S. Office of Education, sponsored a series of demonstration centers that are reputed to have been quite cost-effective (they accounted for large increases in Minicourse in the geographical areas surrounding the centers), but were discontinued without any real assessment of their worth. At minimum, it would seem to NIE's advantage to obtain some written description of the demonstration center experiment and its apparent results for use in future dissemination planning activities.

Annex

TAXONOMY OF POLICIES CONSIDERED SIGNIFICANT IN THE STUDY OF MINICOURSES

Annex

TAXONOMY OF POLICIES CONSIDERED SIGNIFICANT IN THE STUDY OF MINICOURSES

Policy Name	Reference Citation	Policy Type and Generation Process	Source	Explanation of Significance
Title IV of PL 89-10	20 U.S.C. 861-870	Statutory Law (Enactment)	Federal (Legislative) (U.S. Congress)	Enabling legislation for the development of laboratories and centers.
Contracts between USOE and FWL, 1965-72	USOE Contract No. (n.a.) (FWL Policy Archives)	Contracts (Contracts)	Federal-nongovernmental (Administrative-research facility) (USOE and FWL)	The prime source of funds from 1965-72.
Federal copyright policy	35 F.R. 7317	Administrative Law (Regulations)	Federal (Administrative)	Provided copyright privileges for development and sale of Minicourses.
Education Amendments of 1972, Section 405, PL 92-318	20 U.S.C. 1221e	Statutory Law (Enactment)	Federal (Legislative) (U.S. Congress)	NIE enabling legislation transferring control of funding for laboratories and centers from USOE to NIE.
n.a.	n.a.	Administrative Law (Discretionary Act)	Federal (USOE)	Initiated program purchase (requirement that FWL make its miniprogram cost-effective).
Contract between NIE and FWL, 1973-75	NIE Contract No. (n.a.)	Contract (Contract)	Federal-nongovernmental (Administrative-research facility) (NIE and FWL)	Funding of further miniwork. Directs emphasis to evaluation of existing minis (that is, away from further development).

Note: n.a. = not available.

REFERENCES

"The International Transfer of Microteaching Programs for Teacher Education," Draft paper, Centre for Education Research and Innovation, Organization for Economic Cooperation and Development, Paris, France (1974).

Van Houten, A. J. "International Transfer of Educational Innovations: A Comparative Study of Minicourse Transfer Projects in Selected European Countries," Doctoral Dissertation, Claremont University (1975).

Case Study VI

THE SCHOOL MATHEMATICS STUDY GROUP (SMSG) PROJECT AS AN EXAMPLE OF POLICIES AFFECTING THE DISSEMINATION/UTILIZATION OF AN R&D PRODUCT

by

Gary Sykes

CONTENTS

LIST OF ILLUSTRATIONS . . . . VI-v

LIST OF TABLES . . . . VI-v

I INTRODUCTION. VI-1

II POLICIES BEARING ON SMSG. VI-3

III USE OF THE ANALYTIC FRAMEWORK VI-15

ANNEXES

A BACKGROUND ANALYSIS OF SMSG MATH VI-19

B TAXONOMY OF POLICIES CONSIDERED SIGNIFICANT IN THE STUDY OF THE SCHOOL MATHEMATICS STUDY GROUP VI-33

REFERENCES VI-37

ILLUSTRATIONS

VI-1 Establishment and Organization of SMSG VI-3

VI-2 SMSG Policymaking Sequence VI-5

VI-3 Subcontracting Arrangements for SMSG Curriculum Evaluation VI-7

VI-4 Policy Sources That Determine the Contract Provisions Between SMSG Researchers and Publishers/Distributors VI-9

VI-5 Contrast of Initial and Subsequent SMSG Policy Board Decisions Concerning Royalties VI-11

VI-6 Generic Policy Structure of SMSG VI-12

TABLES

VI-1 Materials Developed by SMSG. VI-6

VI-2 Major Research and Evaluation Studies Conducted by SMSG. VI-8

VI-3 Major Policies Identified with SMSG. VI-13

I INTRODUCTION

A major program of educational reform began in the late 1950s under the auspices of the National Science Foundation (NSF). The NSF Course Content Improvement Project was an attempt to effect educational change through curriculum reform, primarily in the sciences. One of these curriculum development efforts came in the field of mathematics education through a project known as the School Mathematics Study Group (SMSG), which existed from 1958 to 1972. The SMSG math project is the topic of this study for two reasons: it was a significant, large-scale attempt at educational change using a widely recognized strategy (curriculum reform), and it represents an interesting contrast with the Minicourse case (see Topic V), allowing substantive comparisons between these two development efforts.

In the case of Minicourse development, our analysis aims at the complex interaction of policies, agents, activities, and resources through time and across levels of scope. Here, we adopt the analytic framework for a different purpose, limiting the analysis to identification of all significant policies bearing on SMSG activities. The question generating this inquiry is simply, "What policies bear on a given activity?" (in this case the development of SMSG math). The focus of this case study, then, is the identification, not the assessment of policies. However, our intent in pursuing this purpose will be two-fold: We may compare this use of the analytic framework with its use in the more complex analysis of Minicourse development, and we shall provide an assessment of this approach through comparison with a fuller treatment of SMSG in Annex A, appended to this case study.

II POLICIES BEARING ON SMSG

We may depict the policies bearing on SMSG by a series of policy maps, each covering a different aspect of this activity. Figure VI-1 represents the establishment and organization of SMSG. Following two NSF-sponsored conferences on mathematics in 1958, the American Mathematical Society (AMS), the Mathematics Association of America (MAA), and the National Council of Teachers of Mathematics (NCTM) appointed a committee to make recommendations concerning the development of a new math curricula. This committee returned recommendations that essentially established the School Mathematics Study Group. These recommendations called for a director, advisory board, and supervisory panels to oversee the work. The organization of SMSG and provision for appointments to the advisory panel were formally established in the bylaws passed in 1961.

Following the resolution to establish SMSG, Dr. E. Begle was appointed director, and a proposal was submitted to NSF. By May of 1958, NSF had

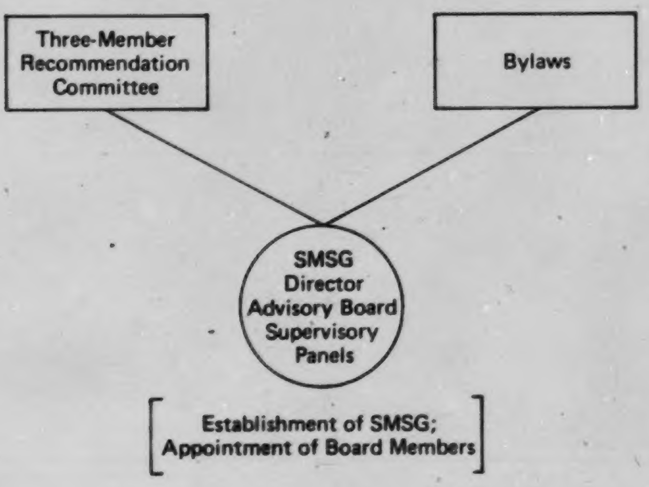

Three-Member Recommendation Committee
Bylaws
SMSG Director Advisory Board Supervisory Panels
Establishment of SMSG; Appointment of Board Members

FIGURE VI-1 ESTABLISHMENT AND ORGANIZATION OF SMSG

provided the first grant of $100,000, and over the next 14 years, a series of NSF grants supported SMSG activities. Consequently, the proposals that Dr. Begle wrote and the grants awarded in response to these proposals were key policy regulators. According to Dr. Begle, the NSF generally supported the requests submitted, but occasionally vetoed a project or made an additional request for a report or some other project. Unfortunately, the destruction of the NSF proposals and grants in a fire at Stanford University prevents a more detailed discussion of these transactions and prevents, as well, a determination of the specific regulations that affected SMSG activities.

Within SMSG, the advisory board was the chief source of policy, and all formal policy in SMSG emanated from this source. Most particularly, the board determined what projects SMSG would pursue, subject to acceptance by NSF. Figure VI-2 depicts the generic policymaking sequence. In practice, the director had a large measure of influence over this process, as he sat on the board, was responsible for appointing members of supervisory panels and work groups, and sat in on most supervisory panel meetings. Generally the decision to pursue a new project of interest came directly from the recommendations and resolutions of the board. Occasionally, the board requested that a conference be held and recommendations submitted. This input then became one basis for the board's decision. Following a board recommendation, the director appointed a supervisory panel to draw up the outline for the proposed curriculum. Finally, a work group wrote the text during an intensive session of several months during the summer. In this manner SMSG produced a complete set of math texts, K-12, teacher editions for each student text, and a number of supplementary texts and materials such as the New Math Library, a monograph series, and a group of teacher training films. In several cases, the board recommended that more than one text be produced: the 7th, 8th, and 9th grade texts were revised and rewritten for below-average students, and SMSG initiated a

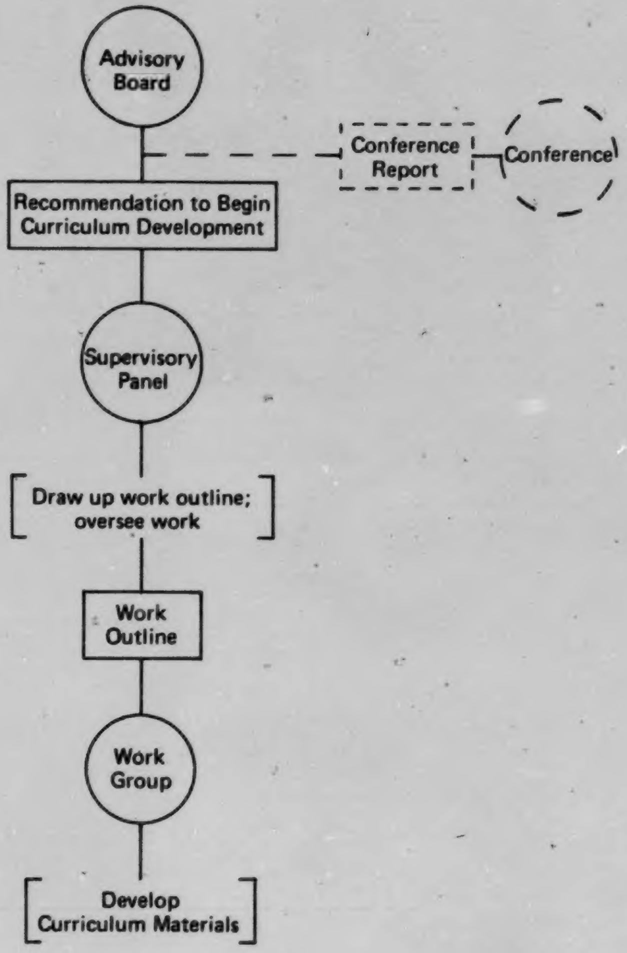

Advisory Board
Conference Report
Conference
Recommendation to Begin Curriculum Development
Supervisory Panel
Draw up work outline; oversee work
Work Outline
Work Group
Develop Curriculum Materials

FIGURE VI-2 SMSG POLICYMAKING SEQUENCE

second round of curriculum development in 1968, producing an entirely new set of texts, 7-12. Table VI-1 shows the major materials developed by SMSG.

In addition to NSF, the SMSG advisory board, and the SMSG director, a fourth source of policy was the subcontracts between SMSG and other agents covering evaluation and research activities. SMSG became engaged not only in evaluating their texts, but also in a number of basic and applied research studies of mathematical abilities. Two agents, Educational Testing Service (ETS) and the Minnesota National Laboratory for the

Table VI-1

MATERIALS DEVELOPED BY SMSG

Topic	Year Published														
	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
Texts, 7-8		X													
New Math Library monographs				X	X	X		X	X	X	X		X		X
Studies in math		X	X		X	X			X	X	X	X	X		X
Texts, 9-12			X												
Alternate geometry text					X										
Texts, 4-6					X										
Texts, 1-3							X								
Analytic geometry (1 semester)							X								
Calculus (1 semester)								X							
Computer math (1 semester)									X						
Revised texts, 7-9					X										
Revised texts, K-1									X						
In-service teacher course text									X						
Math and physics texts, 7-9							X								
Math and biology texts, 7-9								X							
Second round texts, 7-12															X
Probability units, primary, intermediate, Jr. High									X						
Supplementary Jr. High units for fast learners					X										
Supplementary pamphlets for secondary students					X										
In-service teacher training films						X									
Algebra programmed learning text, 9							X								

Improvement of Secondary Mathematics, carried out portions of this research. The work of the Minnesota Math Lab was generally included as part of the NSF grants, while subcontracting arrangements with ETS were the rule. Figure VI-3 depicts this policy source.

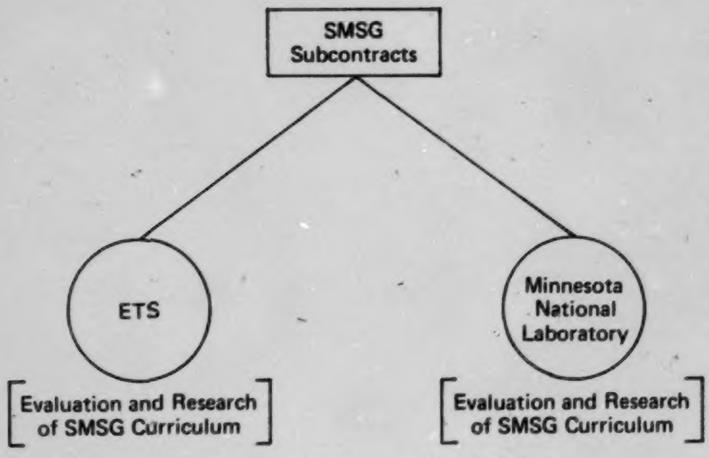

SMSG Subcontracts
ETS
Minnesota National Laboratory
Evaluation and Research of SMSG Curriculum
Evaluation and Research of SMSG Curriculum

FIGURE VI-3 SUBCONTRACTING ARRANGEMENTS FOR SMSG CURRICULUM EVALUATION

Table VI-2 shows the major studies carried out by SMSG. Four sets of policies regulated these evaluation and research activities: an advisory board recommendation that the study be made, provision for the study and its budget in an NSF grant, guidelines and outline of research established by the relevant supervisory panel, and in some cases a subcontract with ETS or arrangement with the Minnesota Math Lab.

Policies regulating the production and distribution of SMSG materials came in the form of contracts and copyrights. SMSG secured copyrights for all their products and used several publishers for their materials. Initially, Yale University Press distributed SMSG texts (Dr. Begle was a member of the Yale University faculty until 1961, when he and the SMSG operation moved to Stanford University). Later, A. C. Vroman Co. became the chief distributor, with other firms assuming minor roles. Random

Table VI-2

MAJOR RESEARCH AND EVALUATION STUDIES CONDUCTED BY SMSG

Topic	Year 1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
Evaluation studies of early text materials, 7-9: Minnesota National Lab	X	X													
Evaluation of 7-12 texts: ETS			X	—	X										
Evaluation of filmed course for elementary teachers						X	—	X							
Observation study of K-1 slum classes							X	—	X						
Evaluation of 9th algebra programmed text							X	—	X						
National Longitudinal Study of Mathematics Abilities (NLSMA)					X	—	—	—	—	—	X				
Elementary Longitudinal Study of Mathematics Abilities (ELMA)									X	—	—	—	—	X	
Study of 25th-50th percentile ability of students using Jr. High texts				X—X											
Study of low-ability, Jr. High students				X	—	X									
Evaluation of SMSG, Grades 7-12: Minnesota National Lab			X	X											
Student achievement in SMSG classes, Grades 4-5				X	—	X									
Evaluation of SMSG texts, Grades 4, 8: Minnesota National Lab				X	—	X									
Comparison of SMSG 7M and 9M with 7th and 9th SMSG texts: Minnesota National Lab				X	—	X									

House and later A. C. Singer produced the New Math Library, Modern Learning Aids produced the teacher training films, and Houghton-Mifflin produced some of the research reports. Figure VI-4 depicts these policy sources. The contracts were of a standard form specifying prices, royalties, commission on sales, storage of texts, Stanford University approval of all advertising copy, and so on. The contracts were formally negotiated between Stanford University and the commercial publisher, as SMSG received sponsorship from that university through Dr. Begle's position as a faculty member.

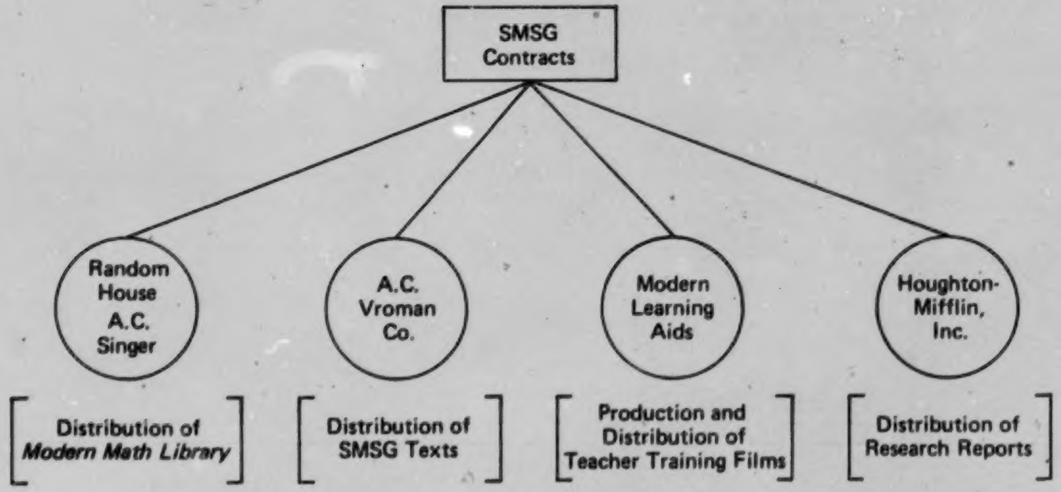

SMSG Contracts
Random House A.C. Singer
A.C. Vroman Co.
Modern Learning Aids
Houghton-Mifflin, Inc.
Distribution of *Modern Math Library*
Distribution of SMSG Texts
Production and Distribution of Teacher Training Films
Distribution of Research Reports

FIGURE VI-4 POLICY SOURCES THAT DETERMINED THE CONTRACT PROVISIONS BETWEEN SMSG RESEARCHERS AND PUBLISHERS/DISTRIBUTORS

Finally, SMSG worked out formal policy to meet two related problems: first, the issue of when to withdraw SMSG texts from the market and, second, the need for policy on use of SMSG materials in commercially produced texts. Initially the advisory board issued a statement that texts would be available for five years; a year later the period was changed to "as long as was needed." To determine this "need," the board experimented with three strategies: checklists with which to review commercial texts, multiple reviews of new commercial texts, and drop in demand for SMSG texts. The point was to determine when commercial publishers were producing a sufficiently good math text by SMSG standards to warrant withdrawal of SMSG texts. Part of this problem concerned the use of SMSG materials. Many mathematicians who produced commercial texts had also worked on SMSG texts, which created certain equity problems that the board resolved through the following policy:

- Permission to use SMSG materials could be secured from the director of SMSG.
- In determining such use, no account was to be taken of an author's connections with SMSG.
- In no case was permission given to use SMSG materials until the publication had been available for two years.

The board, in response to a requirement from NSF, first ruled that no royalty payments would be allowed to authors of texts using SMSG materials. When this policy proved too restrictive, they determined that a percentage of the royalties would be returned to NSF. Finally, with approval from NSF, the board ruled that all royalties would go directly to the author. These related policies are depicted in Figure VI-5.

We may summarize this policy-oriented analysis of SMSG in two ways. Figure VI-6 draws together major policies linking the setting and complying agents. Table VI-3 provides this policy breakout in a different form and with the inclusion of activities and resources.

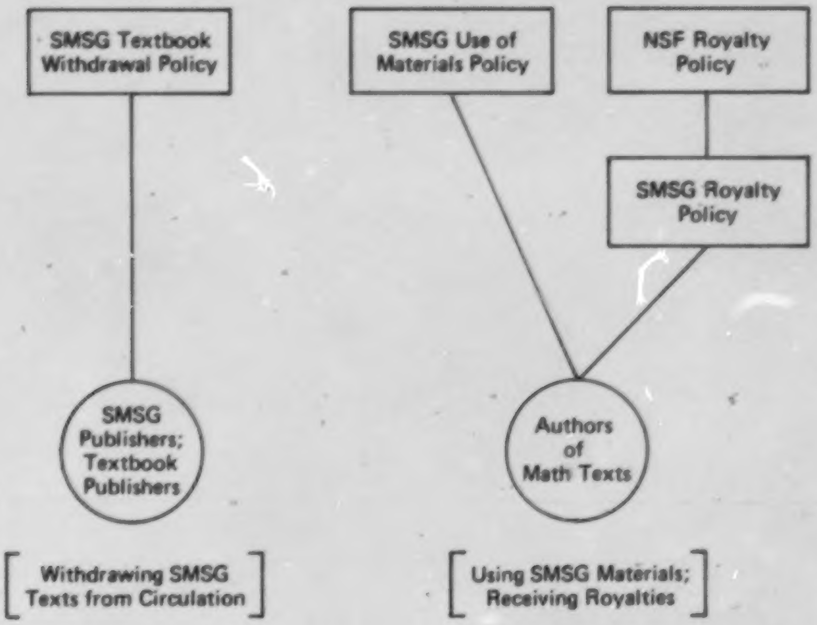

SMSG Textbook Withdrawal Policy
SMSG Use of Materials Policy
NSF Royalty Policy
SMSG Royalty Policy
SMSG Publishers; Textbook Publishers
Authors of Math Texts
Withdrawing SMSG Texts from Circulation
Using SMSG Materials; Receiving Royalties

FIGURE VI-5 CONTRAST OF INITIAL AND SUBSEQUENT SMSG POLICY BOARD DECISIONS CONCERNING ROYALTIES

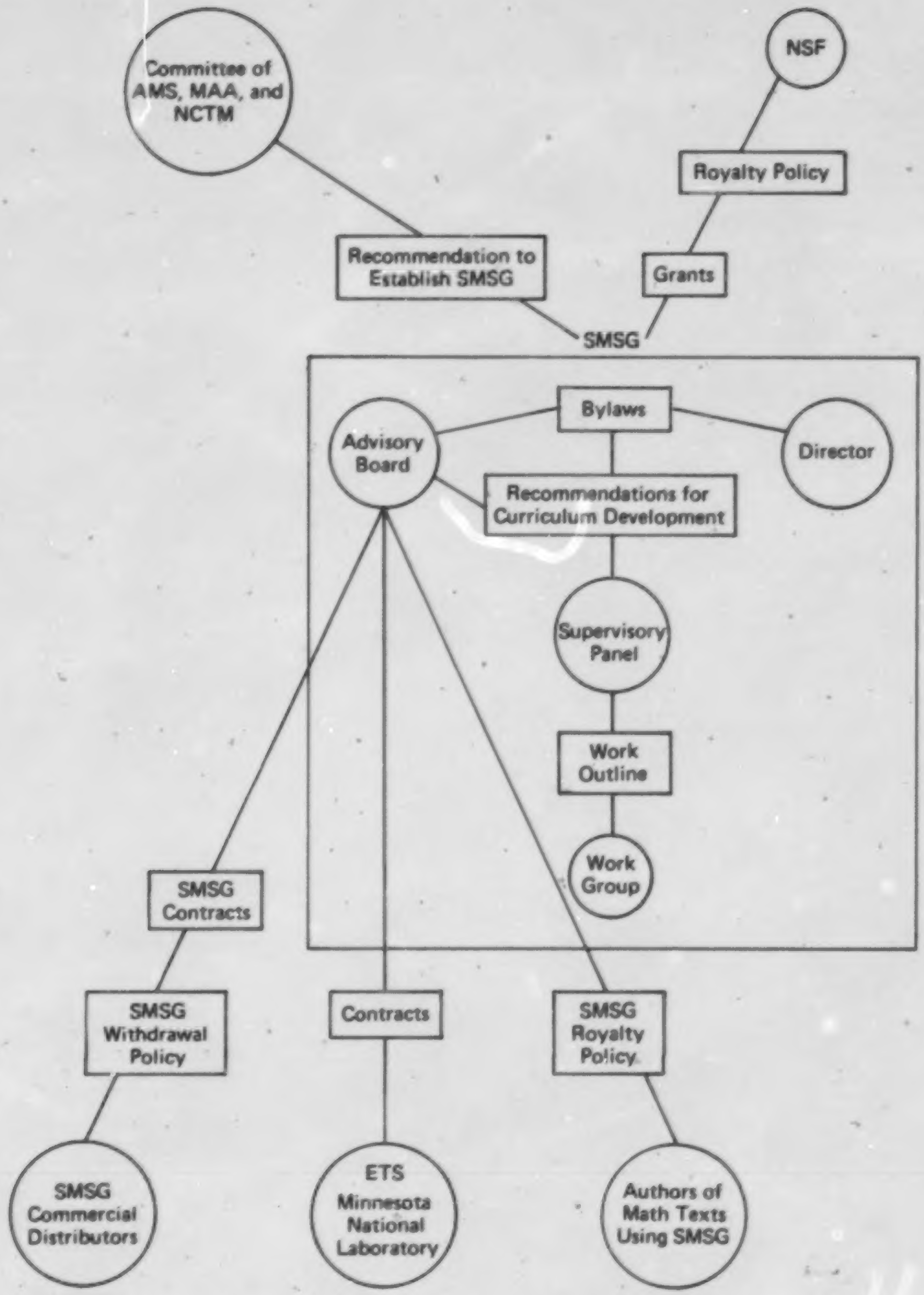

Committee of AMS, MAA, and NCTM
NSF
Royalty Policy
Recommendation to Establish SMSG
Grants
SMSG
Bylaws
Advisory Board
Director
Recommendations for Curriculum Development
Supervisory Panel
Work Outline
Work Group
SMSG Contracts
SMSG Withdrawal Policy
Contracts
SMSG Royalty Policy
SMSG Commercial Distributors
ETS Minnesota National Laboratory
Authors of Math Texts Using SMSG

FIGURE VI-6 GENERIC POLICY STRUCTURE OF SMSG

Table VI-3

MAJOR POLICIES IDENTIFIED WITH SMSG

Policy	Source	Target	Activity	Resource
Committee recommendations on establishment of SMSG	Joint sponsorship by AMS, MAA, and NCTM		Establishing a group to develop new math curricula	
Bylaws of SMSG	Advisory board of SMSG	SMSG as an organization	Establishing formal organization of SMSG: elective and appointive offices	
Contracts--NSF and SMSG	NSF	SMSG	Specific work to be carried out: development of curricula	Grants to SMSG
Subcontracts--SMSG and ETS	SMSG--director and advisory board	ETS	Scope of research to be carried out	Funds to ETS
Contracts--SMSG and commercial publishers	SMSG--director and advisory board	A. C. Vroman, Random House, Modern Learning Aids	Production and distribution of SMSG materials	Prices, royalties, commissions
Textbook publishing policy*	SMSG advisory board	Commercial publishers and SMSG	Withdrawal of texts	
Use of materials policy*	SMSG advisory board	Authors of commercial math texts	Permission to use royalties	Royalties
Copyrights on all SMSG materials	Stanford University Press	Authors of commercial math texts; all others	Copying SMSG materials	
Board resolutions plus recommendations regarding work to pursue	SMSG advisory board	Director; supervisory panels; work groups; ad hoc conferences	Various: development of texts and other materials; study of a new topic area; and so forth	
Royalty policy*	NSF	SMSG	Providing royalties for commercial texts using SMSG materials	Royalties

*The substance of this policy has changed somewhat over time. For an elaboration of changes, see Annex A.

III USE OF THE ANALYTIC FRAMEWORK

A number of sources provided the information for this case study, the foremost being Dr. Begle, director of SMSG during its 14-year tenure, who granted a number of interviews. Other primary sources included SMSG newsletters, minutes of the advisory board, various SMSG reports and documents, miscellaneous correspondence from the SMSG files, and the contracts with various commercial publishers. Secondary sources are listed in the reference list that follows this case study.

In the process of consulting our various sources to locate significant policies, we collected more data on SMSG than are reported above. Compared with the treatment accorded SMSG in Annex A, the simple analysis seems sparse indeed. Two observations are noteworthy. The first is that the conduct of SMSG was notable for its relative lack of formal policy. Many of the critical decisions were not recorded, much less codified. More often than not, decisions internal to SMSG were made and transmitted informally. A number of standard operating procedures were simply never articulated as policy. Given the character of this enterprise, then, the simple identification of policy provides a meager account of this activity. However, a simple analysis of an activity more fully defined and mediated by formal policy might prove more illuminating.

The second observation serves to sharpen the distinction between a simple and a complex analysis. The difference lies not in the amount of data which an analyst must process, but in the manner in which he organizes the data and reconstructs the case. A simple analysis requires only the location and articulation of relations among policies, agents, and activities. Complex analysis entails representing interactions among agents, policies, and activities at different points in time and, frequently, using more than one "field-focus" scope of analysis. Complex analysis may also entail an assessment of the impact of policy that moves far beyond that which a simple analysis purports to do. The point, though, is that the investment of time in data collection may be negligibly different using either mode of analysis. In the process of identifying policies, one inevitably learns more about an EKPU activity than an account of policies alone reveals.

A number of qualifications to these suggestions lead to further observations. This case study used as a reporting device the concept of "generic policy." This term indicates a policy whose structure and function remain stable but which is manifest in any number of specific instances, and whose contents may have altered. The prime example in this case is the NSF-SMSG grants. The function of these grants was to regulate the exchange of funds for projects and products of a specified nature. The provisions structuring these grants did not vary, but the particular amount of funding and the specified projects and products did change with each new grant. Using the concept of generic policy raises two issues. First, faced with a repetitive policy such as the NSF grants, it seemed sensible to create a shorthand means of representing such policy--the concept of generic policy provides such a means. The increase in information about SMSG promised by a complete enumeration of the grants seemed incommensurate with the added expenditure of time and effort. This is, then, one instance of judgment concerning a trade-off that use of the analytic framework entails. Second, use of this shorthand option leaves open the possibility that a complete enumeration of all grants, contracts, board resolutions, and the like would have provided the complete picture of SMSG that we have claimed is not available through a simple analysis. There is some merit in this point of view, but a reading of Annex A reveals aspects of SMSG (such as the use of tryout centers to gain teacher feedback on new texts) not covered by any specific policies. To reiterate, use of the analytic framework entails a judgment that weighs level of detail in data collection against the time expended to achieve such detail. The principal guide to making this judgment will be the purposes of the analysis conditioned by the practical constraints facing the analyst.

Annex A

BACKGROUND ANALYSIS OF SMSG MATH

Annex A

BACKGROUND ANALYSIS OF SMSG MATH

Introduction

This account of SMSG activities attempts a thorough portrayal of this project and essays some conclusions about SMSG as compared with the Minicourse case. There is little attempt to structure the material using the analytic framework. The purpose is to provide baseline information for comparison with the simple analysis of SMSG and with the Minicourse case study. The analysis is presented in four sections: (1) a brief overview emphasizing certain features of the context within which SMSG was created and carried out, (2) the organization and operation of SMSG, (3) significant changes in SMSG goals, activities, and the like, and (4) a compare/contrast perspective with Topic V, the Minicourse case study, and some conclusions.

Overview

A confluence of factors resulted in the establishment of SMSG in 1958. Within the professional math community there had been a growing sense of the discrepancy between advances in the basic structure and conception of mathematics, and a precollege math curriculum that did not reflect these historic and revolutionary changes. Before SMSG, some revision of math curricula occurred under Dr. Max Beberman at the University of Illinois, and through the initiative of the College Entrance Examination Board. The catalyst to curriculum reform, however, was the launching of Sputnik in 1956. The perception that the United States was behind its chief rival in scientific accomplishments (at least in the area of space travel) set off a demand for improved identification and education of scientific talent. One concrete response to this demand was the NSF Course Content Improvement Project, which first funded the Physical Sciences Study Committee (PSSC), followed by SMSG and other major curriculum projects in the sciences.

The genesis of SMSG was an NSF-sponsored meeting of mathematicians held at MIT in February 1958. Participants at this meeting included Dr. Jerrold Zacharias, head of PSSC. Following the lead of the physics group, the meeting recommended that the American Mathematical Society appoint a committee to initiate a curriculum development project. The AMS complied, and Dr. E. G. Begle was offered leadership of the project, with Yale University providing the institutional setting. NSF gave an initial grant of $100,000, and the project was under way by the summer of 1958.

Over the next 14 years SMSG developed a large number of math materials. The principal goal became production of textbooks--K-12--with several versions produced for various levels of student ability. SMSG also carried out the field testing and revision of their texts and initiated a number of research and evaluation studies in math education [the most notable being the National Longitudinal Study of Mathematical Abilities (NLSMA) from 1962 to 1967]. The impact of SMSG has been notable: Over five million students have used SMSG materials; subsequent commercial textbooks have been heavily influenced by the SMSG approach, in part because many textbook writers worked at some time on SMSG materials; and SMSG as an enterprise contributed to the knowledge and practice of curriculum development.

Organization and Operation of SMSG

Although there have been changes in the goals, procedures, and organization of SMSG, there has also been a remarkable fidelity to the basic approach that initially guided development. The committee appointed by the AMS recommended a simple organization that included the director, an advisory committee, and an executive committee composed of advisory committee members. The initial charge to the group was general (i.e., "... improve the general level of instruction in mathematics in elementary and secondary schools"), and there was no decision on the duration of SMSG as an entity. Consequently, the history of SMSG is best viewed as an organic development rather than as a "blueprint" development. The process of institutionalization (the little that occurred) proceeded slowly. It was not until 1961 that bylaws were passed, establishing policies such as tenure of advisory board members, method for replacing outgoing board members, and power to appoint ad hoc and other committees. The director, chief policy-setting actor within SMSG, had wide discretionary authority limited only by the bylaws and by contractual obligations to NSF. In practice, of course, the director worked closely with the advisory board and corresponded often with NSF. The director's authority, however, cannot be overstated. He was constantly in touch with the daily operation of SMSG; he appointed the members of the supervisory panels and working groups (to be discussed below) and sat in on their meetings; along with other board members, he could place items on the board agenda; and he prepared and submitted all proposals for grants to NSF and sent in monthly progress reports. Consequently, SMSG policy setting was predominantly but not exclusively controlled by a single actor, the director.

For each project undertaken by SMSG, a supervisory panel was appointed to outline and oversee the work. The panels were essentially independent, however, and varied in their operation. The Panel on Sample Texts was concerned only with general matters such as keeping communications open between writing teams and establishing the format of textbooks. On the other hand, the Junior High Panel actively engaged in planning and writing of text materials. Completing the organizational hierarchy were the writing teams who generally worked from an outline prepared by a supervisory panel, but were then free to write as they wished.

The production of SMSG materials may be divided into two sequences. First was the process through which a topic or project was proposed, considered, and then accepted or rejected; this we term the generative sequence. Next was the process by which a product was created, tested, revised, and released; this we term the developmental sequence. In both cases a stable series of steps was usually followed, but as a matter of practice the steps were never formally codified as policy.

The generative sequence followed this pattern:

- A suggestion for a new project or product was introduced at the advisory board meeting. Sources for such suggestions varied from members of the board, to the director, to outside requests.
- After deliberation, the board appointed an ad hoc committee or convened a conference to study the issue and to report back with recommendations.
- Upon accepting a recommendation, the director in consultation with the board appointed a supervisory panel to outline the work. A working group was appointed, and the developmental sequence was set in motion.

The developmental sequence included the following steps:

- The supervisory panel drew up an outline of the work.
- Convening during the summer, a work group of research mathematicians and teachers wrote a first draft.
- The first draft became the preliminary version of the text that was printed and distributed to tryout centers around the country. Cooperating teachers used the text during that school year and submitted a written evaluation to SMSG.
- The supervisory panel or work group used the input from the field to revise the text during the following summer. Generally, this revision resulted in a final draft printed for general use. However, in some instances further revision was necessary.

SMSG also developed procedures to deal with the problems of distribution and adoption. Initially, Yale University Press acted as distributor for SMSG materials. Later, a number of commercial firms distributed various SMSG products, e.g., A. C. Vroman Co., Random House, and Modern Learning Aids. The policy of interest in this area concerned SMSG's stance on the publicity and sales of their materials. From its inception, SMSG intended to produce materials that would (1) exemplify the kind of mathematics the group advocated, (2) serve as stimuli, models, and sources for authors of commercial publications, and (3) provide interim materials until suitable commercial books became available. This policy resulted in a number of practical problems (discussed in more detail below) and a dilemma with respect to dissemination; i.e., the group wished to maximize their impact on the field of precollege math, but were philosophically opposed to active promotion of their materials (a position that NSF encouraged as in keeping with the decentralized, autonomous nature of the U.S. school system). The result was the production of plain, soft-cover texts unsuitable for long-term adoption, and a minimal promotional effort that included publication of a newsletter, occasional displays at conferences, and the natural interest generated by the development and field-testing work that included many teachers around the country.

To meet the problem of adoption and use, SMSG adopted several procedures. First was the decision to create texts a unit at a time rather than to develop an entire K-12 program based on careful sequencing and integration. The assumption was that school districts could more easily adopt individual texts that did not violate accepted grade placement of topics. More particularly, though, explicit steps were taken to inform teachers about the approach embodied in SMSG materials. Before each school year, SMSG held an orientation conference for teachers who would be using SMSG materials that year. Then each tryout center was staffed with a research mathematician who consulted with the classroom teachers throughout the tryout year. These active in-service activities were necessary for helping teachers to make the transition from traditional practices to the "new math."

A final general feature of SMSG concerned arrangements for testing and evaluation. Although SMSG carried out certain studies themselves, they subcontracted some evaluation work to outside agents. At the NSF conference in 1958, which recommended a math curriculum effort, another resolution was passed "welcoming action by the State of Minnesota to provide facilities for statewide testing of the materials to be produced by SMSG." Consequently, at the same time SMSG started up, legislation in Minnesota established the Minnesota National Laboratory for the Improvement of Secondary Mathematics. This group, under the direction of Dr. P. C. Rosenbloom carried out several evaluations and conducted much of the basic SMSG research. The other evaluation agent was ETS, which conducted an early study using student outcomes in 1960. For nearly a decade and a half, SMSG mounted significant research studies in mathematics learning, and Stanford University still has a large amount of data available for secondary analyses.

Changes in SMSG, 1958-72

Several major shifts occurred during the history of SMSG, more often in response to a shifting social climate than in response to specific directives from NSF. These changes, discussed below, were for the most part gradual shifts in emphasis and priority rather than drastic breaks.

First, the initial emphasis of SMSG was on training average and above-average students as potential scientists. However, as the post-Sputnik concern gave way in the 1960s to increasing emphasis on social welfare, equalizing opportunity, and the like, SMSG targeted more of their research and development to the "slow" student, to the "culturally disadvantaged," and to the problems of math teaching in urban slums. This was a shift not in basic goals so much as a shift in the target of effort that coincided roughly with shifts in national priorities and concerns. We judge that the impetus for this change came not through official channels (i.e., NSF), but rather through the perceptions of SMSG agents sensitive to prevailing national concerns.

Second, the focus of SMSG activity changed, as evidenced most clearly by contrasting the initial statement of purpose with the subsequent statement of purpose; these statements are quoted below from the SMSG bylaws:

> ... we need an improved curriculum which will offer students not only the basic math skills but also a deeper understanding of the basic concepts and structure of mathematics. ... [Next], math programs must attract and train more of those students who are capable of studying mathematics with profit. Finally, all help possible must be provided for teachers who are preparing themselves to teach these challenging and interesting courses (March 1959).
>
> The primary purpose of the SMSG is to foster research and development in the teaching of school mathematics (March 1962).

The 1962 statement goes on to place major emphasis on development of materials, but, in fact, there was a growing emphasis on research and evaluation. The initial goal of SMSG was to create materials and to educate teachers in their use. As SMSG progressed, however, increasing attention went to basic research. What dictated the initial curriculum reform were changes in the logic of the discipline of mathematics. What came to be a concern was the psychology of learning mathematics--leading to NLSMA, ELMA, and the other research studies conducted later. In this sense, it is not inaccurate to claim that development and dissemination preceded research in the case of SMSG. Again, the stimulus for this shift in emphasis came from perceptions of key actors in SMSG who were strongly influenced during the 1960s by the work of psychologists such as Jean Piaget, and by a book drawing on Piaget's work, Jerome Bruner's

The Process of Education (1965). An increased concern for the developmental and psychological bases of curriculum resulted, which led to more research and testing.

A third change could be aptly termed one of strategy. After considerable deliberation, SMSG decided to initiate a second round of curriculum revision in 1967. The purpose of this second effort was to produce a well-sequenced secondary curriculum that would integrate mathematics in Grades 7 through 12 and break down existing compartmentalization by creating new grade placements and introducing new topics. This effort finished in 1972 and, as with the above changes, represented a decision internal to SMSG. In general, SMSG procedures remained relatively stable while changes in programs and goals did occur. The origin of these broad policy changes was the SMSG itself--i.e., its leadership responding to changing conditions and perceived needs. While NSF did institute several procedural changes (e.g., salaries were dropped in 1965, some projects were vetoed, and directives were issued on textbook royalties and use of SMSG materials), SMSG was largely free to pursue its own course and to make those shifts in priority that it felt were desirable.

Key Issues and Conclusions

Important decisions made early in SMSG were consistent with the basic philosophy of the group and represented stances on important issues. The following were successful resolutions of important issues:

- The writing groups were composed equally of research mathematicians and classroom teachers, a successful union of two groups that had formerly been out of touch. SMSG itself came into being with the approval of the American Mathematical Society, the Mathematics Association of America, and the National Council of the Teachers of Mathematics, each a necessary constituent of the project.

- In the early 1960s, there was an educational controversy on the issue of establishing "national curricula." Critics of federal involvement in curriculum development complained that such involvement represented an attempt to usurp local control of schools. Sensitive to this issue, SMSG chose to emphasize their materials as samples only, and as stimuli to commercial publishers. For this reason, they produced only paper-bound editions using photo-offset from a typewritten manuscript. This policy actually headed off two objections. First, it met the criticisms of the opponents of national curricula. SMSG did not intend to establish a curriculum but rather wished to stimulate a reform in mathematics education. Second, it calmed the ire of the publishing industry, which saw the curriculum projects and certain texts sponsored by NSF receiving, in effect, a government imprimatur. By minimizing promotional activity, providing liberal policy on use of SMSG materials in commercial texts, and encouraging commercial publishers to follow the SMSG lead, SMSG was relatively successful in alleviating publishers' fears.
- By and large, SMSG was successful in gaining the participation of constituencies and of maintaining a communications network. The AMS, MAA, and NCTM were represented on the advisory board, the supervisory panels, and work groups. The tryout centers stimulated interest in SMSG, and the newsletters kept the professional field informed. Participation of these key groups headed off conflict and ensured a measure of consensus in each of the final products.

On the other hand, parents and students were not included in SMSG activities. A series of conferences sponsored by NCTM informed administrators about SMSG, but the philosophy of the group called for local districts to inform parents about SMSG. This procedure had no repercussions until the last several years, when criticisms surfaced of the new math's adverse effects on computational skills.

One critical issue, however, was debated throughout the course of SMSG without resulting in a completely successful policy. The problem concerned SMSG policies on textbook withdrawal and on use of SMSG materials. SMSG philosophy called for an indirect approach to reform, i.e., to provide texts as a stimulus to the field and withdraw the texts as soon as commercial materials of equal quality were available. The question was how to determine when this had occurred. SMSG tried several policies: developing checklists to evaluate commercial texts, establishing multiple reviews of new texts, and finally using fall-off in demand as the criterion for withdrawal of the text. The other controversy centered on use of SMSG materials. As authors in SMSG began to publish their own texts, the question arose of royalties and permission to use SMSG material. Initially NSF refused to allow royalty payments to authors using SMSG materials in their own texts, but when it became apparent that commercial texts did not meet SMSG standards, NSF relaxed this policy to provide greater incentive to model new texts on the SMSG materials.

Comparison of SMSG with Minicourses

The SMSG project differs from Minicourse development (see Case Study V) in a number of ways:

- Minicourses were based squarely on research, both in terms of the original research on microteaching and on the research underlying each Minicourse topic. SMSG was based on changes in the structure of mathematics, and not on research in the teaching and learning of math. Research preceded development in one case and followed it in the other.
- The change strategy was different in each case. Minicourses were direct attempts to change teacher behavior; they were a teacher training product claimed to be exemplary and marketed in competition with other products. Such an approach requires careful attention to dissemination and adoption. The goal of SMSG, however, was explicitly not to disseminate an exemplary product, but rather to establish a model for the field to emulate. Consequently, SMSG did not have to face the problems of ensuring a profit, marketing, advertising, and the like.
- The organizational/institutional context for each innovation was different. SMSG was a transient organization with a single mission and little need to engage in the process of institution building--i.e., developing policies and procedures, hiring staff, attracting long-term political support,

and the like. Its tenure as an organization was limited, and few actors had a personal stake in maintaining its existence beyond that which was necessary to accomplish its mission. By contrast, Minicourse developed as a fledgling institution interested not only in its mission goals and programs but also in its survival as an entity. The consequences of this contextual difference are manifold, but especially relevant to this study's purposes is that the full panoply of policies generated at FWL bore on the development of Minicourses, whereas SMSG operated in a setting that was relatively policy-free.

- An intangible factor operated in the case of SMSG, which might best be termed a climate for reform. The 1960s evidenced a general receptivity to curriculum innovations, a certain optimism that educational improvement would result from curriculum reform. Minicourses met no such receptive climate. Because of their price ($1500 for software and an additional $1500 for the requisite hardware) and a general diminution in interest relative to the product, marketing Minicourses was a gamble by Macmillan Company. In general, we conclude that in addition to tangible, manipulable factors influencing the dissemination and adoption of innovation, there are other background variables, such as the climate of belief and opinion, that have a strong effect.
- SMSG was particularly successful in establishing communication with and gaining the cooperation of significant portions of its audience. Teachers and university mathematicians collaborated on the materials; members of professional organizations related to math periodically received SMSG newsletters; a large number of centers were set up for trial use of new materials; orientation sessions helped train teachers at the beginning of each school year; and NCTM ran a series of conferences to explain SMSG to administrators. These efforts stand in contrast to FWL's tardy realization that they too must be concerned not only with development but also with dissemination and use (hence the establishment of the Utilization Division at the Laboratory, and the Minicourse demonstration centers project).

Annex B

TAXONOMY OF POLICIES CONSIDERED SIGNIFICANT IN THE STUDY OF THE SCHOOL MATHEMATICS STUDY GROUP

Annex B

TAXONOMY OF POLICIES CONSIDERED SIGNIFICANT IN THE STUDY OF THE SCHOOL MATHEMATICS STUDY GROUP

Policy Name	Reference Citation	Policy Type and Generation Process	Source	Explanation of Significance
Federal contracts funding SMSG, 1958-72	NSF Contract No. (n.a.)	Contract (Contract)	Federal-nongovernmental (Executive-research facility) (NSF-SMSG study group)	The source of funds from 1958-72.
Contracts between SMSG study groups and publishers	SMSG Contract No. (n.a.) SMSG contract No. (n.a.) SMSG Contract No. (n.a.) (Modern Learning Aids) SMSG Contract No. (n.a.) (Houghton-Mifflin)	Contract (Contract)	Nongovernmental-nongovernmental (Research facility-private industry) (SMSG study group-Pub./Dist.)	Mechanism used by SMSG to get products published and distributed.
SMSG Bylaws	SMSG News Letter No. 15, available from Dr. E. Begle, former director of SMSG	Constitutional (Constitutional)	Nongovernmental (Research facility) (Committee appointed by American Mathematics Society; Mathematics Association of America; National Council of Teachers)	Bylaws established SMSG, and outlined purposes and operating procedures.
NDEA of 1958, PL 91-95	20 U.S.C. 421	Statutory Law (Enactment)	Federal (Legislative) (U.S. Congress)	Source of funds and purpose for SMSG contracts.

Note: n.a. = not available.

REFERENCES

Begle, E. G., "SMSG: The First Decade," The Mathematics Teacher, pp. 239-245 (March 1968).

Begle, E. G., "SMSG: Where We Are Today," in Confronting Curriculum Reform, E. Eisner, ed., pp. 68-82 (Little, Brown and Co., Boston, Massachusetts, 1971).

Bruner, J., The Process of Education (Vintage Books, New York, New York, 1965).

Wooten, W., SMSG: The Making of a Curriculum (Yale University Press, New Haven, Connecticut, 1965).

Case Study VII

ESEA TITLE III TEACHER INITIATED INNOVATION PROGRAM: AN EXAMPLE OF POLICIES INTERFACING LEVELS OF GOVERNMENT

by

Myra Hodgson
and
David Lombardi

CONTENTS

LIST OF ILLUSTRATIONS . . . . VII-v

LIST OF TABLES . . . . VII-vii

I INTRODUCTION VII-1

II FEDERAL REQUIREMENTS FOR STATE PARTICIPATION (STATE PLAN) VII-5

III RESPONSES TO FEDERAL REQUIREMENTS FOR STATE PROGRAMS VII-9

- Development of a State Program Administration VII-9
  - State Responses to Requests for an SAC VII-9
  - State Responses to Requirement Specifying SAC Duties VII-12
- Design of a Critical Needs Assessment Program VII-13
  - State Responses to Requirement to Conduct Needs Assessment VII-15
  - State Responses to Requirement to Describe Needs Assessment Process VII-15
- Establishment of Projects Program VII-16
  - State Responses to Requirement to Disseminate Knowledge of Title III VII-17
  - State Responses to Requirement to Establish Application Review Procedures VII-20
  - State Responses to Requirement to Establish a Panel of Experts VII-20
  - State Responses to Requirement to Develop Evaluative Criteria VII-21
  - State Responses to Requirement to Distribute Funds Equitably VII-22
- Provisions for Dissemination of Project Results VII-22
  - State Responses to Requirement for a Project Evaluation Program VII-23
  - State Responses to Requirements to Disseminate and Establish Promising Projects VII-25
- The State Administrator's Manual VII-26

IV FORMAL POLICY CONSIDERATIONS AT THE STATE LEVEL--THE CALIFORNIA EXPERIENCE VII-27

California Response to Administration Requirements . . . VII-27
California Response to Critical Needs Assessment Requirements VII-30
California Response to Projects Program Requirements VII-34
California Provisions for Dissemination of Project Results VII-37

V THE OPERATION OF A STATE OFFICE--THE CALIFORNIA TITLE III DISSEMINATION EFFORT VII-41

VI CONCLUSIONS AND RECOMMENDATIONS VII-45

Conclusions on Policy Interaction in Title III Planning VII-45
Conclusions on the Utility of This Approach to the Study of Policy VII-46
Recommended Studies for NIE in Anticipation of a Monitoring System VII-47
Miscellaneous Conclusions and Recommendations VII-49

VII THE USE OF THIS TOPIC IN DEVELOPING AND TESTING THE ANALYTIC FRAMEWORK FOR EDUCATIONAL POLICY ANALYSIS VII-53

Analytic Framework Ideas from Title III VII-53
    Characteristics of Configurations VII-54
        Elementary Components of Configurations VII-54
        Relationships Among Components VII-54
    The Role of the Policy Administrator VII-56
    Formal Policy as a Data Source VII-57
How the Guide to the Use of the Analytic Framework Was Employed to Organize This Title III Analysis for Written Presentation VII-58

ANNEX: TAXONOMY OF POLICIES CONSIDERED SIGNIFICANT IN THE STUDY OF THE TITLE III PROGRAM VII-59

BIBLIOGRAPHY VII-63

ILLUSTRATIONS

VII-1 A Parsing of Title III Policies for KPU Analysis VII-2

VII-2 A Parsing of Title III Policies for KPU Analysis: State Administration VII-10

VII-3 A Parsing of Title III Policies for KPU Analysis: Critical Needs VII-13

VII-4 A Parsing of Title III Policies for KPU Analysis: Projects Program VII-17

VII-5 A Parsing of Title III Policies for KPU Analysis: Dissemination VII-23

TABLES

VII-1 Federal Requirements for State Programs VII-6

VII-2 Details of Federal Requirements for State Programs VII-7

VII-3 A Comparative Analysis of Three States' Responses to Federal Title III Requirements on the Establishment of a State Administration VII-11

VII-4 A Comparative Analysis of Three States' Responses to Federal Title III Requirements on the Design of a Critical Needs Assessment Program VII-14

VII-5 A Comparative Analysis of Three States' Responses to Federal Title III Requirements on the Establishment of a Projects Program VII-18

VII-6 A Comparative Analysis of Three States' Responses to Federal Title III Requirements on Provisions for Dissemination of Project Results VII-24

VII-7 State Level Considerations Affecting the Title III California State Plan Provisions for Program Administration VII-28

VII-8 State Level Considerations Affecting the Title III California State Plan Provisions for Critical Needs Assessment VII-31

VII-9 State Level Considerations Affecting the Title III California State Plan Provisions for the Projects Program VII-35

VII-10 State Level Considerations Affecting the Title III California State Plan Provisions for Dissemination VII-38

I INTRODUCTION

Title III, one of the series of categorical grant programs authorized by the Elementary and Secondary Education Act (ESEA), is a departure from the traditional research-development-dissemination-adoption (RDDA) approach to educational knowledge production and utilization (EKPU). Key to this departure is the involvement of at least three levels of educational governance (local, state, and federal) in Title III operation. Through this program, for example, innovative projects may be initiated by the practicing teacher and the local education agency (LEA) administered by the state, and funded by federal monies.

Because it represents a departure from the RDDA approach and because three levels of educational governance are involved, we have chosen to apply the analytic framework* to the policy interaction Title III requires. Specifically, this analysis shows how three state education agencies (SEAs) coordinate their activities with three sets of formal requirements. These requirements include those of the federal Title III program that the SEA must meet to get funded, those of the state codes under which the SEA falls by virtue of its role in state government, and those of local education agencies with which SEA programs must be compatible for eash adoption or acceptance.

---

*This study is not concerned with Title III per se. The topic was chosen for use in a feasibility study for designing an analytic framework by which NIE might improve its ability to monitor the condition of KPU in American education (see "A Methodology for Describing the Infrastructure of Educational R&D," which is Volume I of this study). In particular, this topic was exploited as a test for the key concepts of that analytic framework.

The mechanism whereby these three sets of requirements are incorporated into the operation of Title III is the state Title III plan. This plan is a yearly contract between the state and USOE, specifying how the state will meet federal requirements while staying within those at the state and local levels as well. Thus we will limit our policy analysis to the establishment of these state plans.

Figure VII-1 illustrates how the federal policies originating in the Title III legislation have been parsed for the purposes of this study. Only those portions of the law that are of direct importance to establishing a Title III program go past the first level of disaggregation in the diagram. While "Requirements for Federal Administration of Title III"

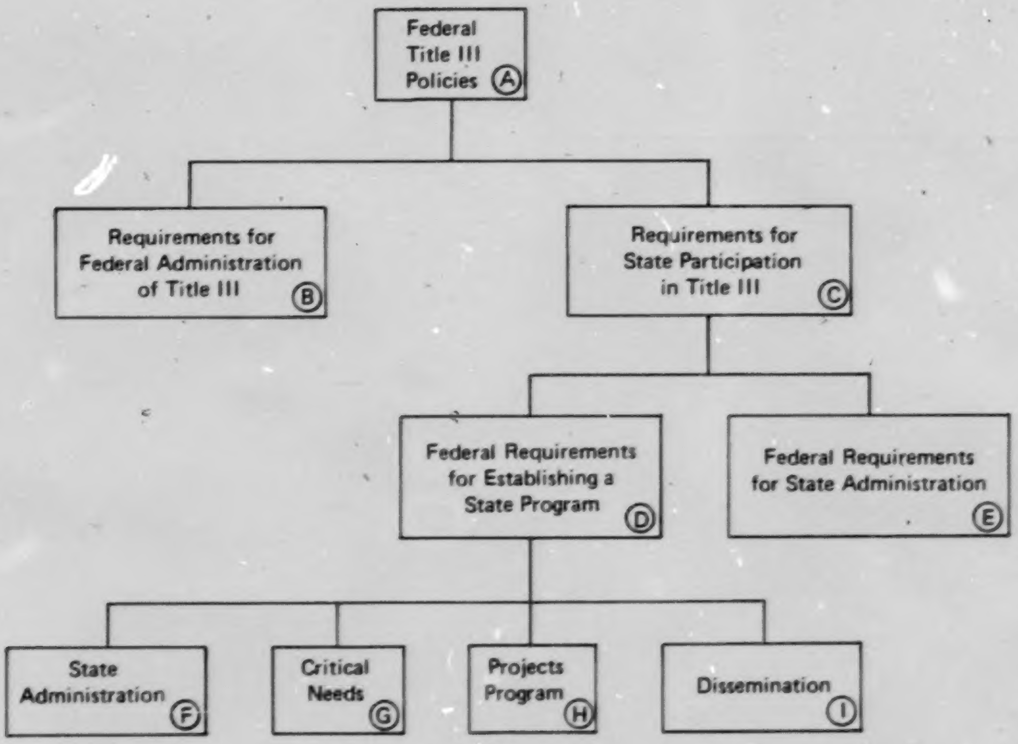

Federal Title III Policies Ⓐ
Requirements for Federal Administration of Title III Ⓑ
Requirements for State Participation in Title III Ⓒ
Federal Requirements for Establishing a State Program Ⓓ
Federal Requirements for State Administration Ⓔ
State Administration Ⓕ
Critical Needs Ⓖ
Projects Program Ⓗ
Dissemination Ⓘ

FIGURE VII-1 A PARSING OF TITLE III POLICIES FOR KPU ANALYSIS

(Box B) and "Federal Requirements for State Administration" (Box E) exist in great detail, they will not be covered in this report.

We expect that the utility of this analysis will accrue primarily to federal-level agents who need to understand why federal regulations have such diverse effects across states. Such understanding should help in designing regulations that maintain the intent of Congressional programs without inadvertently or unnecessarily running against state and local legal constraints.

This case study is presented in four sections.. The analysis is focused first on explicating "Federal Requirements for Establishing a State Program" (Figure VII-1, Box D). Second, we present a comparative exposition of the similarities and differences in the responses to these requirements in three states. Third, we demonstrate how the state code explains some of these differences in the California state plan. Fourth, we discuss how and why the state education agency managers of the dissemination branch of Title III include local policy and practice in the design of their portion of the state plan.

II FEDERAL REQUIREMENTS FOR STATE PARTICIPATION (STATE PLAN)

Federal Title III regulations require that "any state desiring to receive funds ... shall, as a condition to the receipt of such funds, submit a State plan to the Commissioner [of USOE]" (45 C.F.R. 118.6).* These plans, which are the written products of federal/state policy interaction, vary by state and are the working agreement with the federal government by which each state administers its program. They address two basic concerns (Figure VII-1, Boxes D and E). "Federal Requirements for State Administration" (Box E) deals with accounting, capital improvements, and the like, and was not within the scope of this study. "Federal Requirements for Establishing a State Program" (Box D), however, deals with the innovative projects program of Title III and will be explicated; these federal requirements may be divided into four categories:

- Development of a state program administration (Box F)
- Design of a critical needs assessment program (Box G)
- Establishment of a projects program (Box H)
- Provisions for dissemination of project results (Box I).

Table VII-1 summarizes the activities required for each of the above categories and provides citations to corresponding regulations and laws. Table VII-2 shows the regulations in greater detail and the agents who are designated the responsibility by law for compliance.

---

*The federal requirements to which the states must respond in their state plans are in Title 45 of the Code of Federal Regulations (C.F.R.). Because these regulations are only summarized in this report, the reader interested in the full text may wish to refer to them direcrly.

Table VII-1

FEDERAL REQUIREMENTS FOR STATE PROGRAMS

Category	U.S.C.	C.F.R.
(F) Establishment of a state administration	20 U.S.C.	45 C.F.R.
SEA shall appoint a State Advisory Council (SAC) that is representative of cultural and educational resources of state; no SEA members.	844a(a)(2)(1)(A)	118.3(a)
SAC will provide policy advice to SEA, recommend action on project applications, evaluate Title III programs and projects, and prepare an annual report.	844a(a)(2)(1)(A)	118.4(a)(1-4)
(G) Critical needs assessment	20 U.S.C.	45 C.F.R.
State plan shall identify the critical educational needs of the state, considering geographic areas and population groups.	844a(b)(1)(A)	118.8(a)
State plan shall describe process by which needs were identified, citing objective criteria and procedures for data collection and translation.	844a(b)(1)(A)	118.8(a)
(H) Projects program	20 U.S.C.	45 C.F.R.
SEA shall establish procedures to disseminate Title III information and stimulate applications for funds.	844	118.23(a)
SEA shall establish procedures for review and disposition of local project applications.	844(b)(3)	118.24
SEA shall establish a Panel of Experts to review local project applications.	844(b)(3)	118.23
State plan shall describe criteria used to evaluate project applications.	844a(b)(1)	118.8(a)
State plan shall establish criteria for equitable distribution of Title III funds, considering population distribution, distribution of relative needs, and resources of different groups within state.	844a(b)(1)	118.12
(I) Dissemination	20 U.S.C.	45 C.F.R.
State plan shall establish a program to evaluate effectiveness of Title III projects by the State Advisory Council.	844a(b)(6)	118.8(b)
State plan shall establish a dissemination program for evaluative information about Title III projects.	844a(b)(6)	118.8(c)
State plan shall establish a program for the adoption and adaption of promising Title III project components.	844a(b)(6)	118.8(d)

Table VII-2

DETAILS OF FEDERAL REQUIREMENTS FOR STATE PROGRAMS

Agent	Establishment of a State Administration	Critical Needs Assessment	Projects Program	Dissemination
Governor	118.6(d) Review and comment on state plan 118.22(b) Coordinate Title III with other programs in the state			
State Attorney General	118.8c(2) Certification of state plan			
Chief state school officer	118.3B May not serve on Title II State Advisory Council			
State Advisory Council	844a(a)(4) SAC selects a chairman from its own group 844a(a)(2) Advise SEA on preparation and policy matters regarding state plan 844a(a)(1)(c) Submit to Commissioner the state plan via SEA 844a(a)(4) One public meeting/year 844a(a)(2) Report to National Advisory Council and USOE recommendations and evaluation of activities		844a(a)(2) Assist SEA development of criteria for project approvals 844a(a)(2) Review and make recommendations to SEA on grant application action 844a(a)(1) Set deadlines for submission of proposals to SEA	844a(a)(2) Evaluate state Title III program 844a(a)(3) May obtain services needed to function and to contract for evaluation needs 844a(b)(8) Evaluation due at least on an annual basis
State Education Agency (SEA)	844a(a)(2)(1)(A) SEA appoints SAC according to established federal criteria 844a(a)(1)(c) Work with SAC on state plan 844a(a)(2) Work with SAC on annual report to USOE and National Council 118.4(b) Staff may not serve on SAC 118.3(c) Certify the establishment of the SAC membership 118.8c(1) Officer of SEA certifies authority to submit state plan 118.22b Coordinate Title III with other programs 118.51B Statement of anticipated fiscal needs submitted to Commissioner of USOE	118.22a Establish long-range goals to be attained via assistance of Title III	118.8(c) Establish an Appeals Board 118.21 Establish Panel of Experts--determine number, qualifications, and selection procedure 118.11C Establish, maintain, and improve a guidance program 118.22b Establish programs for development of educational leadership in the state 118.22e Establish criteria for construction of facilities 118.22g Maintain records of products and program funds 118.23d Establish procedures for review and disposition of applications coordinating the SAC and POE with the SEA 118.23a Establish procedures to stimulate applications for projects 118.24a Establish criteria for approval of projects on critical needs 118.25 Establish criteria for approval of guidance projects 118.26 Establish criteria for approval of handicapped projects 118.22 Conduct an on-site project evaluation at least annually 118.23(e) Establish procedures for hearings on rationale for nonfunding of projects 118.27(a) Establish a project period and procedures for continuation 118.27d Terminate projects not successful or not in compliance with Title III policy.	

Table VII-2 (Concluded)

Agent	Establishment of a State Administration	Critical Needs Assessment	Projects Program	Dissemination
To be determined by state plan	844a(a)(3) Certify the establishment of membership of SAC with Commissioner 844a(b)(2) Set forth an administrative organization and practice, including qualifications of personnel 844a(b)(11) Report to Commissioner on Annual Program 118.7(a) Name officially the Title III SEA bureau 118.8(f) Establish provisions for prevention of commingling of Title III state funds	118.8(a) Establish and conduct a critical needs assessment	844b(1) Panel of Experts to review proposals 841B Establish guidance and counseling program 844a(b)(3) Establish criteria for achieving equitable distribution of program funds 844a(b)(4) Special considerations to applications from low-wealth LEAs 844a(a)(1) Set application deadlines 844a(b)(12) Provision for notification concerning project decisions before final action is taken 844(c) Amendments of applications shall follow same procedure as original applications 118.9 Describe grants program as based on critical needs 118.10 Describe testing program 118.8(e) List any additional criteria used to evaluate projects--beyond what is required by 118.24(a) 118.8(g) Establish guarantees that Title III funding will not be considered in determinations of LEA eligibility for state aid	844a(b)(6) Dissemination of results of evaluations and information pertaining to projects 118.8(c) Disseminate program information 118.8(d) Establish an adoption procedure for schools wishing to continue Title III
Panel of Experts			844(b)(3) Review project applications	
Institution of higher education	843(f)(1) Assume SEA functions if necessary			
Junior colleges/ technical institutes			118.22b Participation limited to guidance and counseling projects	
Guidance counselors			118.11(b) Maintain a guidance program	
Local education agencies			844(a) Project grants are authorized only for LEAs	
Public			844a(a)(4) Opportunity to meet at public SAC meeting to discuss program	
Private school children			118.15a Title III must serve on a percent basis private school children the same services as those in the public schools 118.19(a) Insufficient consideration of private school children is one basis for nonapproval of state plans	

III RESPONSES TO FEDERAL REQUIREMENTS FOR STATE PROGRAMS

Using the four categories of federal Title III regulations--state administration, critical needs, projects program, and dissemination--we will review the California, Nebraska, and Washington state plans. The comparison of each plan in each of the four categories is based entirely on the state plan documents provided to us by the states and on the summarized regulations in Table VII-1. The fiscal year covered is 1973-74. Following each comparison is a table that displays, side by side, elements of the state plan and the federal requirements discussed in the narrative.

Development of a State Program Administration

The federal requirements concerning the development of a state program administration (Figure VII-2, Box F) consist of:

(I) The appointment of a State Advisory Council (SAC) by the SEA.

(II) The articulation of powers and duties for the SAC, once established.

These requirements, summarized in Table VII-1, Row F, appear in the first column of Table VII-3. Each of the three states has responded to these requirements somewhat differently.

State Responses to Requirements for an SAC
(Table VII-3, Row I)

Of the three states chosen for study in this topic, each state appoints its SAC differently. The California SEA has only limited authority to appoint an SAC pursuant to the enactment by the California legislature of Education Code Section 576 (Table VII-3, Box A). This section, which

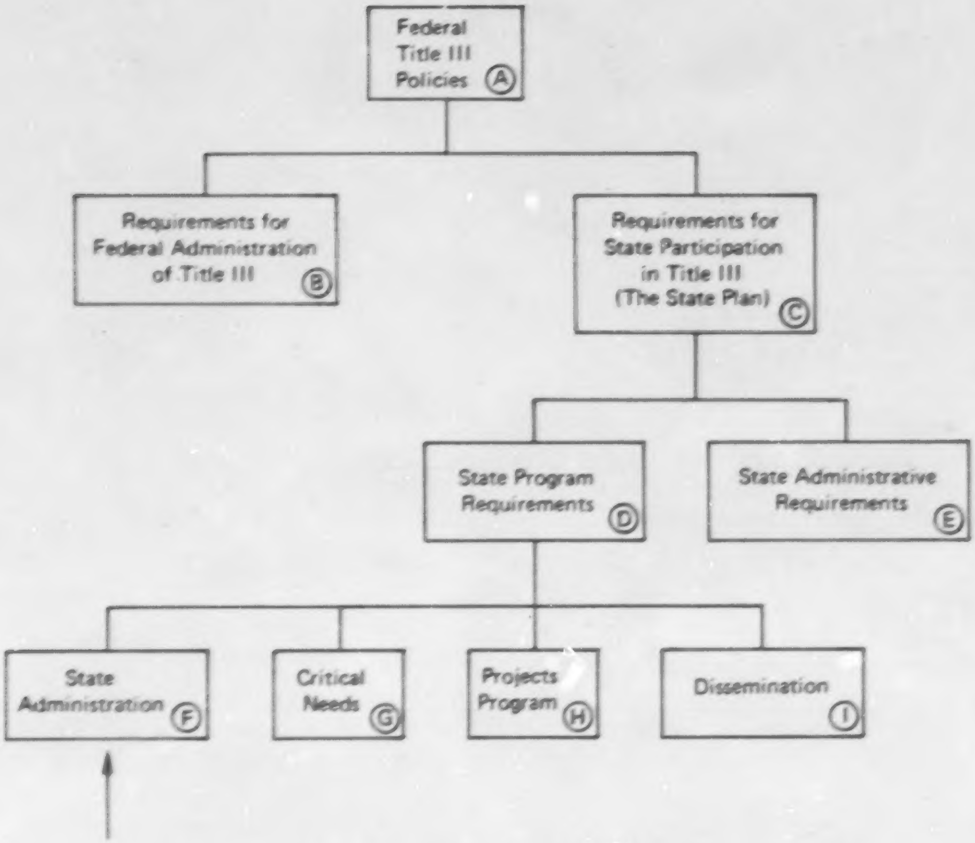

Federal Title III Policies Ⓐ
Requirements for Federal Administration of Title III Ⓑ
Requirements for State Participation in Title III (The State Plan) Ⓒ
State Program Requirements Ⓓ
State Administrative Requirements Ⓔ
State Administration Ⓕ
Critical Needs Ⓖ
Projects Program Ⓗ
Dissemination Ⓘ

FIGURE VII-2 A PARSING OF TITLE III POLICIES FOR KPU ANALYSIS: STATE ADMINISTRATION

establishes the size, appointment procedures, and composition of the SAC, must be obeyed by the SEA if the SAC is to have legal validity under the state law. The result in California is that the SEA appoints 15 members to highly categorized positions; the legislature appoints five members, and one member is appointed by the governor. Only the procedure for appointing the SAC is mentioned in the California state plan. The members of the California SAC (called the Educational Innovation and Planning Commission) are not named in the California plan.

In contrast, the Nebraska state plan (Table VII-3, Box B) makes no mention of state code requirements for the SAC, and the SEA itself

Table VII-3

A COMPARATIVE ANALYSIS OF THREE STATES' RESPONSES TO FEDERAL TITLE III REQUIREMENTS ON THE ESTABLISHMENT OF A STATE ADMINISTRATION

Federal Requirements	California State Plan Response	Nebraska State Plan Response	Washington State Plan Response
(I) SEA shall appoint a State Advisory Council (SAC) that is representative of cultural and educational resources of state; no SEA members	Educational Innovation and Planning Commission Assure broad representation as required by federal regulation California Ed. Code Section 576 requires: Professional representation Lay representation Technical experts Educational specialists Ⓐ	SAC selected by State Commissioner of Education Seventeen members SAC will take active role in activities sponsored by President's National Advisory Council and National Association of State Advisory Council Chairmen Individual members are named and information given regarding: Cultural and educational area represented Highest level of educational attainment Prior relevant experience Current occupation and title Ⓑ	Appointed by Superintendent of Public Instruction (SPI) Fourteen members Chosen to be representative of: Public and private K-12 education Educational and noneducational professional organizations Higher education Mass media State School Directors' Association Guidance and counselling Business and labor Handicapped education Early childhood education Public, particularly the low-income public Names of members provided Ⓒ
(II) SAC will provide policy advice to SEA, recommend action on project applications, evaluate Title III programs and projects, and prepare an annual report	Advise SEA on: Policy for Title III programs Work on criteria for review of applications Specify priorities for projects pursuant to outline in California Ed. Code Sections 576-582.1 Review all projects, new or continuing [Ed. Code Section 557(a)] Evaluation: Design criteria for evaluation Conduct annual evaluation of Title III program Prepare annual report Ⓓ	Recommend policies and procedures relating to Title III and advise SEA on Title III policy matters Advise State Department of Education in development and preparation of state plan and criteria for approval of applications Hold public meetings Four subcommittees Policies and Procedures Project Review Evaluation and Dissemination Needs Assessment Advise SEA in preparation of annual report Conduct a state meeting with various publics to discuss mutual concerns Ⓔ	Aid SPI in: Preparation of state plan Determining policy for Title III Development of criteria for approval of project applications Preparation of annual report Using information gathered by ongoing evaluation program, make evaluation of funded programs Select an interdisciplinary assessment panel to aid annual evaluation of statewide impact of Title III Ⓕ

establishes no criteria for SAC selection beyond those established by the federal regulations. Nebraska does, however, give the names of the people appointed as members of its SAC and provides biographic information for each to indicate compliance with the federal requirements for public representation and SAC composition.

In the Washington state plan the SEA expands on the general categories of the federal requirements (Table VII-3, Box C). The Washington SAC, which consists of 14 members, is chosen to be representative of ten groups, including private and public elementary and secondary education, business, labor, and the low-income public. The names of the members of the Washington SAC are also provided in the state plan.

State Responses to Requirement Specifying SAC Duties
(Table VII-3, Row II)

The three states responded directly to the federal requirements regarding the designation of powers and duties for the SAC. Although each state outlined the same basic powers and duties, the amount of detail included in the state plans varied. California, for example, clearly designates the responsibilities of its SAC, citing the California Education Code Sections 576-582.1 (Table VII-3, Box D). Within these sections of law is an elaboration of the federal requirements. These elaborations range from the powers of the Commission, to terms and provisions of office, and from the utilization of the State Department of Education (SDE) staff to the identification of exemplary projects.

Neither Nebraska nor Washington report in their state plans any state law specifically affecting the function of their SACs. They do supply in varying detail, however, the functions and responsibilities of their councils (Table VI-3, Boxes E and F).

Design of a Critical Needs Assessment Program

The states must comply with two basic federal requirements regarding the development of a critical needs assessment program (Figure VII-3, Box G). They must:

(I) Identify the critical educational needs of the state.

(II) Describe the process by which these critical needs were identified.

These requirements, summarized in Table VII-1, Row G, appear in the first column of Table VII-4.

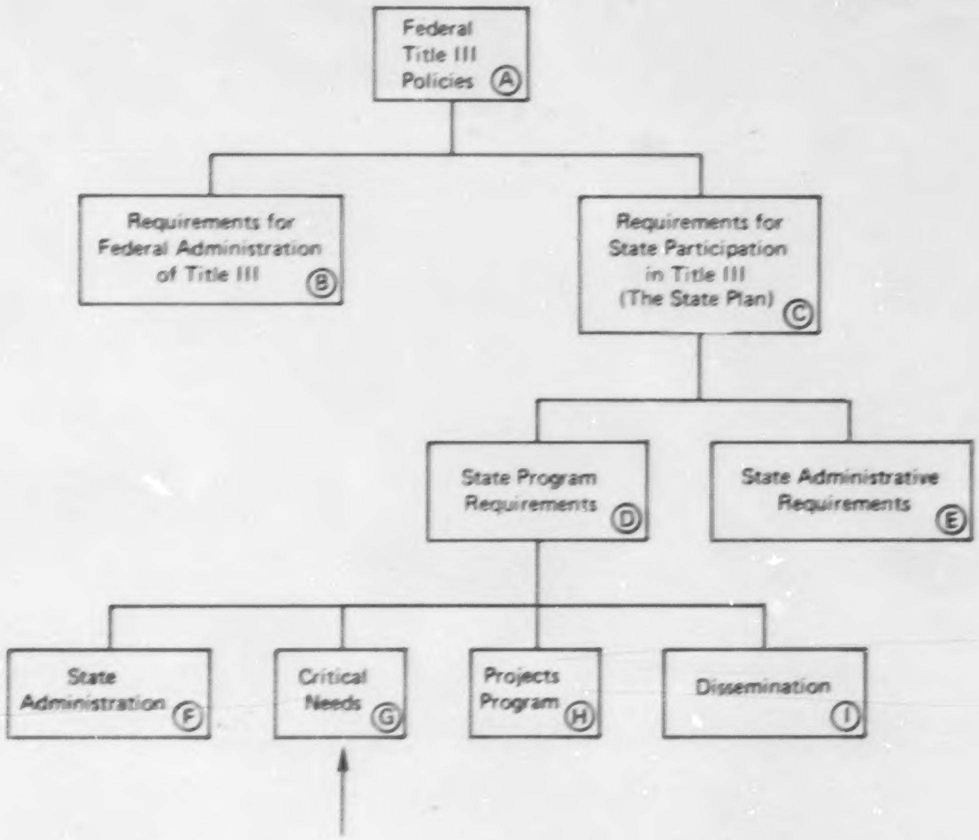

Federal Title III Policies Ⓐ
Requirements for Federal Administration of Title III Ⓑ
Requirements for State Participation in Title III (The State Plan) Ⓒ
State Program Requirements Ⓓ
State Administrative Requirements Ⓔ
State Administration Ⓕ
Critical Needs Ⓖ
Projects Program Ⓗ
Dissemination Ⓘ

FIGURE VII-3 A PARSING OF TITLE III POLICIES FOR KPU ANALYSIS: CRITICAL NEEDS

Table VII-4

A COMPARATIVE ANALYSIS OF THREE STATES' RESPONSES TO FEDERAL TITLE III REQUIREMENTS
ON THE DESIGN OF A CRITICAL NEEDS ASSESSMENT PROGRAM

Federal Requirements	California State Plan Response	Nebraska State Plan Response	Washington State Plan Response
(I) State plan shall identify the critical educational needs of the state, considering geographic areas and population groups	California critical needs Basic skills (reading and mathematics) Drug abuse Bilingual--bicultural education Career education Conservation education Conflicts on secondary school campuses Early childhood education Guidance and counseling services A	Nebraska critical needs Develop programs for exceptional children Provide pre- and in-service training for teachers of exceptional children Assess and develop each child's potential Develop self-motivation and self-direction Develop in children positive feelings about themselves Continuous educational progress for children Involve the community in educational planning Pre- and in-service training for staff who work under abnormal conditions Pre- and in-service training of LEAs B	The Washington State Plan contained no explicit statement of current critical needs C
(II) State plan shall describe process by which needs were identified, citing objective criteria and procedures for data collection and translation	Must consider California legislative requirements as well as federal requirements--California Ed. Code Sections 588, 591 (now 578.5, 580) Language and math in elementary grades Pre- and in-service training for elementary teachers emphasizing improvement of teacher skills for language development and instruction of math Local advisory group screening of project ideas relative to local needs Needs assessment conducted by two California programs Development of Master Plan for Department of Education by Office of Program Planning and Development Development of school district level goals under procedures established by Joint Legislative Committee on Educational Goals and Evaluation and Assembly Continuing Resolution 127 of 1971 D	1969 Nebraska needs assessment conducted under contract by private agency 1970 surveys and meetings called by Planning and Evaluation Section of Department of Education "Aims for Education;" these were validated in 1972 The "Aim" information, combined with test results from Title III testing program, was used by SAC to update 1969 list of critical needs Nebraska is mounting an ongoing Nebraska State Assessment Program to provide general information at state level about achievements and attitudes of Nebraska students Needs assessment conducted by Title III staff of Planning and Evaluation Section of SDE E	Two part assessment program for fiscal year 1974 Objective-based assessment process using objectives selected by teachers and tested by criterion-referenced instruments Using results of the Anchor Test Study conducted by ETS under contract with USOE and 6th grade reading achievement data, a correlation will be conducted by CTB/McGraw-Hill in the 1971-72 needs assessment These efforts serve as a base for the development of a comprehensive "school improvement accountability" program; planning and design are currently under way F

State Responses to Requirement to Conduct Needs Assessment (Table VII-4), Row I)

In the California and Nebraska state plans, the critical needs are condensed into succinct lists (Tables VII-4, Boxes A and B). In the Washington plan, however, critical needs are not specifically identified (Table VII-4, Box C); instead, they must be inferred from the formative results of a developing statewide assessment program.

California reports the following eight critical needs: basic skills (reading and math), drug abuse, bilingual-bicultural education, career education, conservation education, conflicts on secondary school campuses, early childhood education, and guidance and counseling services.

Nebraska lists nine critical needs: development of programs for exceptional children, provision of pre- and in-service training for teachers of exceptional children, assessment and development of each child's potential, developing in children self-motivation and self-direction, development in children of positive feelings about themselves, fostering continuous educational progress for children, involving the community in educational planning, providing pre- and in-service training for staff who work under abnormal conditions, and providing pre- and in-service training for members of local boards of education (LBEs).

State Responses to Requirement to Describe Needs Assessment Process (Table VII-4, Row II)

The California needs assessment program is not conducted under the aegis of Title III (Table VII-4, Box D). Instead, the conclusions from programs that generate educational needs information consistent with the goals of Title III are used by the California Title III program. The two programs researching the California education needs from which the Title III list is generated are the project to develop a Master Plan for the State Department of Education, and the program generated by the Joint

Legislative Committee on Educational Goals and Evaluation and the Assembly Continuing Resolution of 1971 to develop school district goals. In addition, the California state plan notes that it must be responsive to Education Code Sections 578.5 and 580 in choosing its critical needs. The effect of these sections and other state policies on the formulation of the California state plan will be discussed in greater detail later in this study.

In Nebraska, the staffs of the Title III office and of the Planning and Evaluation section of SDE share responsibility for the critical needs assessment program (Table VII-4, Box E). The state plan indicates that these agents direct efforts toward annual validation and updating of the initial critical needs assessment done in 1969, through a contract with a private agency.

The critical needs assessment program for Washington relies heavily on criterion-referenced tests, which it contracts out to the Educational Testing Service (Table VII-4, Box F). The state plan notes that the needs assessment efforts will serve as a base for the development of a comprehensive "school improvement accountability" program.

Establishment of Projects Program

There are five general federal requirements that the Title III state plans must address in establishing a projects program (Figure VII-4, Box H). These requirements are:

(I) SEA shall disseminate information regarding Title III.

(II) SEA shall establish project application review procedures.

(III) SEA shall establish a Panel of Experts (POE) to review applications.

(IV) Evaluative criteria for applications shall be discussed.

(V) Criteria shall be established to assure equitable distribution of funds.

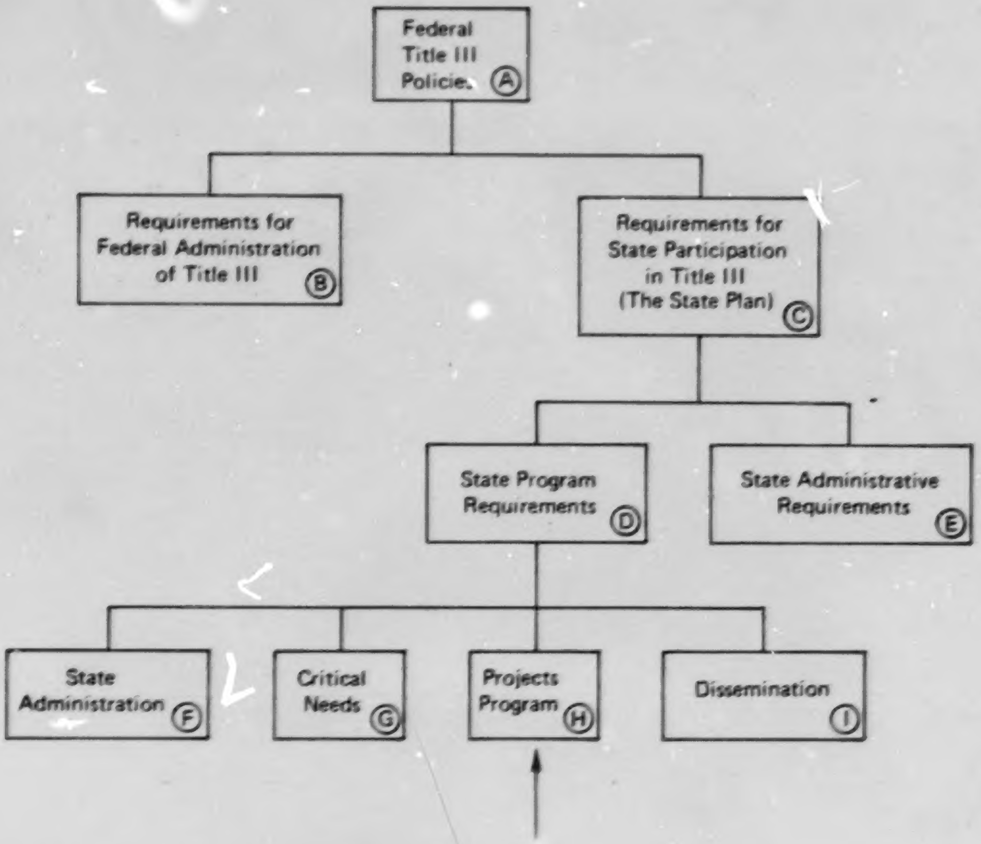

Federal Title III Policies Ⓐ
Requirements for Federal Administration of Title III Ⓑ
Requirements for State Participation in Title III (The State Plan) Ⓒ
State Program Requirements Ⓓ
State Administrative Requirements Ⓔ
State Administration Ⓕ
Critical Needs Ⓖ
Projects Program Ⓗ
Dissemination Ⓘ

FIGURE VII-4 A PARSING OF TITLE III POLICIES FOR KPU ANALYSIS: PROJECTS PROGRAM

These requirements, summarized in Table VII-1, Row H, appear in the first column of Table VII-5.

State Responses to Requirement to Disseminate Knowledge of Title III (Table VII-5, Row I)

All three states described plans for disseminating information about Title III to the LEAs. Nebraska's plan (Table VII-5, Box B), the most detailed exposition, includes establishment of a Public Information Office for the public, individualized conferences for teachers and administrators, and distribution of brochures about the Title III program and its progress toward Nebraska's critical needs. The California and Washington provisions

Table VII-1

A COMPARATIVE ANALYSIS OF THREE STATES' RESPONSES TO FEDERAL TITLE III REQUIREMENTS
ON THE ESTABLISHMENT OF A PROJECTS PROGRAM

Federal Requirements	California State Plan Response	Nebraska State Plan Response	Washington State Plan Response
(I) SEA shall establish procedures to disseminate Title III information and stimulate applications for funds	Assurance that SEA will update and disseminate Title III guidelines on a regular basis to LEAs Assurance that the SEA will consult with LEAs on Title III matters, particularly requirements, applications, and the like SEA will assist LEAs in: Planning innovative or exemplary programs and projects Establishing or expanding such programs and projects Establishing services or activities that utilize new educational practices A	Procedures outlined Information on Title III provided to LEAs, teachers, and administrators Meetings in selected areas of state to discuss Title III Individual conferences held at request of teachers or administrators to provide specific information or proposal assistance Establish Public Information Office to keep various publics current on information regarding education Title III staff and SDE staff will disseminate information on recent developments in education, encourage emulation of successful Title III projects from other states, and distribute brochure telling of state's progress in meeting critical educational needs B	Regional meetings throughout state conducted by SPI staff and SAC wherever possible Meetings promised for September and October Meetings to inform LEAs of Title III, application procedures, and identification of local problems Calendar of events provided C
(II) SEA shall establish procedures for review and disposition of local project applications	A Review Team is selected from the Panel of Experts and from professionals within the SDE Projects are individually reviewed, and rated against themselves and against SDE baseline information List of recommendations is given by review teams to Education Innovation and Planning Commission for review and recommendations for transmittal to SEA D	SEA and SAC select a review and recommendation committee from Panel of Experts, SAC, and SDE Abstract review LEA must first submit abstract for review Action and recommendations made to SAC at public meeting Proposal review POE reviews proposals SDE and Title III staff review proposals; SDE offers "content" specialists to this process SAC subcommittee reviews compiled reviews and recommends action at public SAC meeting E	Review by Panel of Experts Review by specialists from Division of Curriculum and Instruction Reviewers report orally and in writing to SAC SAC and POE make recommendations to SPI for proposal disposition Minimum of two experts, two SAC members, and one SPI staff member reviews each proposal F
(III) SEA shall establish a Panel of Experts to review local project applications	Consists of a continuously updated list of approximately 120 First list is compiled by SDE on basis of solicited nominations from educational agencies, community agencies, business and industry: Educational Innovation and Planning Commission chooses master list from list of nominations submitted by SDE G	SDE, Title III staff, and SAC made recommendations to Assistant Commissioner, Division of Instructional Services, as to membership of Panel of Experts POE consists of approximately 10 to 20 persons (named in state plan) Each proposal reviewed by at least: One person from higher educational with subject area expertise One practitioner in subject area from K-12 systems One Title III staff person or similar person conversant with management requirements of title III projects H	Permanent Panel of Experts appointed in 1968 Appointed by SPI on recommendation of Title III staff in consultation with SAC and SPI staff on education of the handicapped Approximately 20 members; rotation of SPI staff access to national experts from R&D systems I

Table VII-3 (Concluded)

Federal Requirements	California State Plan Response	Nebraska State Plan Response	Washington State Plan Response
(IV) State plan shall describe criteria used to evaluate project applications	Criteria taken verbatim from State Administrator's Manual put out by USOE, Section III, D, 1 (p. 28) Additional California criteria Proposed project must supplement the regular school program Adequacy of plans for eventual adoption of project by LEA J	Criteria taken verbatim from State Administrator's Manual put out by USOE, Section III, D, 1 (p. 28) K	Criteria taken verbatim from State Administrator's Manual put out by USOE, Section III D, 1 (p. 28) Additional Washington criteria Assurance of nonpublic schoolchildren participation Equipment expenditures be no more than 15% of total project budget L
(V) State plan shall establish criteria for equitable distribution of Title III fund funds, considering population distribution, distribution of relative needs, and resources of different groups within state	Where two proposals are equal by all criteria common to state plans, and those designated federal requirements from State Administrator's Manual put out by USOE, Section III, D, 4 (p. 30), then consider: Number of funded Title III projects already operated by LEA Number of Title III projects previously funded for operation by LEA Total amount of funds received by LEA since inception of Title III program in California M	Where two proposals are equal by all criteria common to state plans, and those requirements from State Administrator's Manual put out by USOE, Section III, D, 4 (p. 30), then consider: LEA with greatest financial need LEA in area not funded with Title III funds previously N	Where two proposals are equal by all criteria common to state plans, then the criteria designated be federal requirements, from State Administrator's Manual put out by USOE, Section III, D, 4 (p. 30) should be used O

for promulgation (Table VII-5, Boxes A and C) are less specific, but nonetheless assure that federal directives on the dissemination of program information and stipulation of Title III applications will be met.

State Responses to Requirement to Establish Application Review Procedures (Table VII-5, Row II)

Local project applications go through analogous components in each state's review procedure (Table VII-5, Boxes D, E, F). Each proposal is reviewed by a Panel of Experts, by state education specialists, and by the SAC sometime before reaching the SEA. Although these components are structured somewhat differently and come at different points in the review process, their functions are largely similar across states.

In California and Nebraska, the review process has two stages. Each local project application must first be submitted as a planning proposal or abstract, which, if approved, may provide the basis for a formal proposal. Formal proposals are then reviewed by each agent as required by federal regulation (SAC, Panel of Experts, and SEA) as well as numerous SDE specialists. Washington, on the other hand, requires no preliminary screening, and all proposals undergo a complete review upon submission.

State Responses to Requirement to Establish a Panel of Experts (Table VII-5, Row III)

Each state plan provides for a review of the proposals by a Panel of Experts, as required by federal regulation. The composition of that panel varies greatly, however. California (Table VII-5, Box G) has a master list of approximately 350 experts from a wide variety of fields. This list is continuously updated and receives an annual review by the SAC. Recommendations for appointments to the panel by the SEA are made by the Educational Innovation and Planning Commission according to the California state plan.

In Nebraska (Table VII-5, Box H), the Panel of Experts is selected by the Assistant Commissioner, Division of Instructional Services. From 10 to 20 persons are chosen annually. The list of prospective panel members in the state plan reviewed for this study disclosed no members whose expertise was outside the field of education.

The Washington Panel of Experts (Table VII-5, Box I) is appointed by the Superintendent of Public Instruction and is said to be representative of educational, cultural, and business agencies and the educationally handicapped.

State Responses to Requirement to Develop Evaluative Criteria (Table VII-5, Row IV)

In listing the evaluative criteria to be used for project applications, each of the study states virtually quotes USOE's State Administrator's Manual for Title III.* To the criteria suggested by USOE, California (Table VII-5, Box J) adds that proposed projects must supplement the regular school program and provide an adequate plan for eventual adoption by the project school. The Nebraska state plan lists only the USOE criteria (Table VII-5, Box K). Washington (Table VII-5, Box L) adds two additional criteria: that each proposal provide assurances for the participation of nonpublic school children, and that equipment expenditures be no more than 15% of the total project budget.

---

*The State Administrator's Manual is a significant policy document, which has the effect of enforcing the federal law and regulations by interpreting their provisions and providing the states with guidelines for operation and prepackaged state plan elements. The manual is discussed at greater length at the end of this section.

State Responses to Requirement to Distribute Funds Equitably (Table VII-5, Row V)

State plan equity provisions concerning the distribution of project funds also rely heavily on the USOE Administrator's Manual suggested criteria. In California (Table VII-5, Box M), when proposals are rated of equal need and quality, the state plan provides three further considerations to assure equity in the distribution of funds: the number of Title III projects already operated by the LEA, the number of Title III projects previously funded for operation by the LEA, and the total funds received by the LEA since the inception of the Title III program in California. The Nebraska state plan adds two criteria (Table VII-5, Box N) to the USOE suggested criteria; these are consideration of the LEA with the greatest financial need and consideration of the previous Title III funding for the LEA. The Washington state plan (Table VII- Box O) uses only the USOE criteria.

Provisions for Dissemination of Project Results

There are three basic requirements concerning provisions for dissemination of project results (Figure VII-5, Box I):

(I) Establishment of a program to evaluate effectiveness of projects.

(II) Establishment of a program to disseminate evaluative information.

(III) Establishment of a program for the adoption/adaption of promising project components.

These requirements, summarized in Table VII-1, Box I, appear in the first column of Table VII-6.

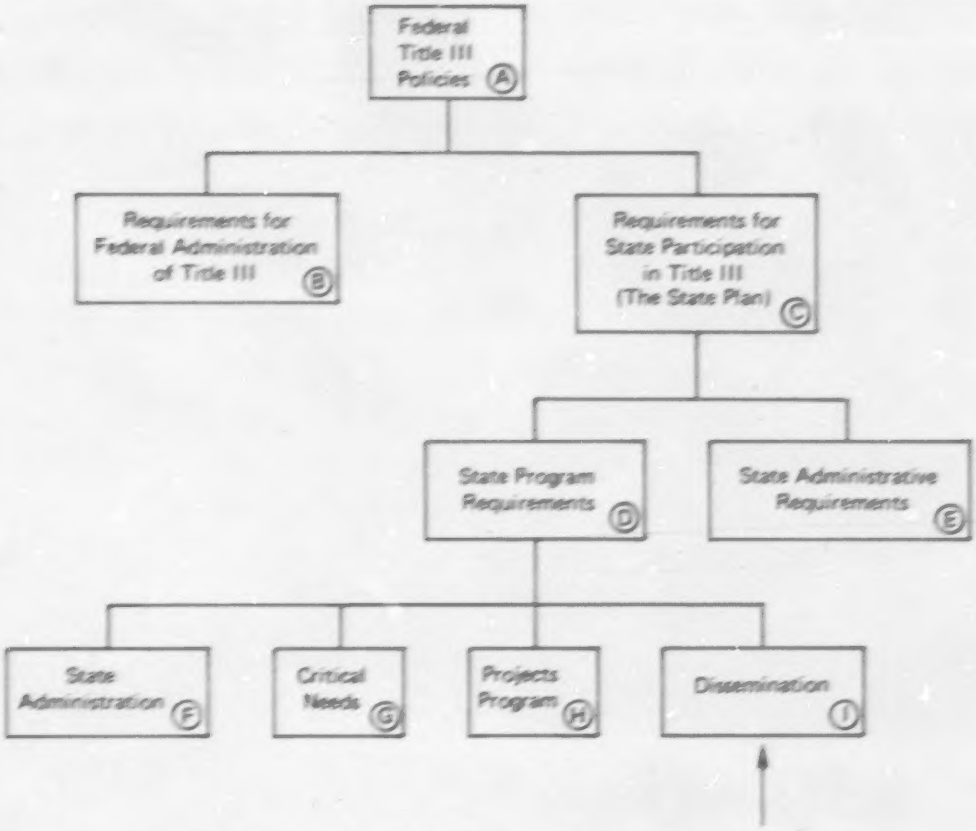

Federal Title III Policies Ⓐ
Requirements for Federal Administration of Title III Ⓑ
Requirements for State Participation in Title III (The State Plan) Ⓒ
State Program Requirements Ⓓ
State Administrative Requirements Ⓔ
State Administration Ⓕ
Critical Needs Ⓖ
Projects Program Ⓗ
Dissemination Ⓘ

FIGURE VII-6 A PARSING OF TITLE III POLICIES FOR KPU ANALYSIS: DISSEMINATION

State Responses to Requirement for a Project Evaluation Program (Table VII-6, Row I)

A comparative reading on Title III dissemination program components indicated that the three states all use project reports and site visits to monitor progress toward their stated goals. Nebraska and Washington both require quarterly reporting, while California requires midproject and end-of-project reports. The Nebraska state plan specifies that all project goals be in quantifiable terms (Table VII-6, Box B); California and Washington accept anecdotal information as a component of the evaluation program (Table VII-6, Boxes A and C).

Table VII-6

A COMPARATIVE ANALYSIS OF THREE STATES' RESPONSES TO FEDERAL TITLE III REQUIREMENTS
ON PROVISIONS FOR DISSEMINATION OF PROJECT RESULTS

Federal Requirements	California State Plan Responses	Nebraska State Plan Responses	Washington State Plan Responses
(i) State plan shall establish a program to evaluate effectiveness of Title III projects by the State Advisory Council	Evaluation program (three-step process) Attention to adequate initial data and evaluation strategy in proposal Monitoring and Review of ongoing project Comprehensive end-of-project report A	Evaluation program All goals in project must be in quantifiable terms Evaluation to be based on before/after participant performance levels not on number of trips, products produced, and the like Per project Quarterly reports One Title III staff visit on effectiveness/efficiency One SAC on-site visit B	Evaluation program Quarterly reports from project LEAs SAC or SPI staff assist LEAs to design adequate evaluation strategies in proposals Evaluation training workshops for SPI and LEA Title III participants Proposals must pass evaluation design criteria Project LEAs must provide SPI staff with descriptive data on projects to be used for practical insights into project operations and general public information Provide enough information to make decisions on exportability of projects C
(ii) State plan shall establish a dissemination program for evaluative information about Title III projects	Emphasis on potential student benefits of Title III projects Focus on professional education community, general public Defined as distribution of print or audiovisual materials to create interest in selected projects Activities: Publish newsletters Design conference exhibits and presentations Maintain library of selected products Maintain information retrieval system Annual communication to public on selected projects (LEA) Keep teachers and administrators in geographic area informed on project If SEA deems project outstanding, inform general public in geographical area D	Four goals Make all LEAs in state aware of Title III intent Encourage LEAs to adopt or adapt Title III innovations to their needs Foster innovative climate in state Maintain information office to coordinate goals in Title III Six activities Develop leaflets, brochures, and the like on each project Supply Title III information to news media Arrange visits to projects Arrange problem-oriented conferences Arrange lecture tours for project groups Send information on projects to USOE and ERIC Focus Project information dissemination Public information E	Five goals Awareness of state purpose and rationale for state plan Generate involvement of LEAs in Title III Assist LEA dissemination efforts Encourage continuation of innovative development after project period Complete necessary reports on Title III Ten target groups School administrators Education faculty members in higher education Professional education groups Philanthropic agencies Social, cultural, medical, and business groups USOE Title III staff SPI staff Washington Congressional delegation State legislators Mass media F
(iii) State plan shall establish a program for the adoption of promising Title III project components	Covered in Sections 582 and 582.1 of California Ed. Code Project LEAs petition SBE to receive an "incentive grant" to become a demonstration center for project SEA and [illegible] review incentive grant application SEA and Educational Innovation and Planning Commission visit projects of interest to them on basis of SEA and [illegible] recommendations SEA and Educational Planning and Innovation Commission make recommendations to State Board of Education (SBE) SBE awards incentive grants G	H	The project LEA is responsible for installation of the innovation in three LEAs wishing to adopt program. Close contact is maintained between originating project LEA personnel and adopter LEAs, including visits back and forth. At the end of the installation period (the full-year project cycle), each of the three LEAs adopting the project will in turn install it in three other LEAs. I

State Responses to Requirements to Disseminate and Establish Promising Projects (Table VII-6, Rows II and III)

Although evaluative information is generally available, all three state plans place emphasis on the dissemination of promising practices instead (Table VII-6, Boxes D, E, F). The following discussion, therefore, deals primarily with the dissemination of promising practices.

California defines its dissemination program as the distribution of print or audiovisual materials to create interest in selected projects (Table VII-6, Box D). The state plan specifically notes that it publishes a Title III newsletter, maintains a library of Title III products, and develops conference exhibits and presentations. In the dissemination of information, emphasis is on the potential student benefits from Title III projects. Here, as elsewhere, California is bound by state legislative enactments. A more detailed discussion follows in the next section.

The Nebraska plan (Table VII-6, Box E) establishes an office to coordinate the Title III state dissemination effort. Stated goals for this office are to make all LEAs aware of the Title III program intent and to encourage the adoption of Title III products. Six stated dissemination office activities range from the development of leaflets and brochures on each Nebraska project to the coordination of lecture tours for project groups.

The Washington state plan (Table VII-6, Box F) outlines a dissemination program based on 5 goals aimed at 10 target groups. The goals are: to generate an awareness of Washington's purposes and rationale for the state plan; to generate LEA involvement in Title III; to assist the LEAs in their own dissemination efforts; to encourage the continuation of innovative developments in the LEAs after projects are completed; and to complete the necessary evaluation information on Title III. The ten identified target groups for the dissemination effort are: public and private school administrators; interested individuals in higher education;

professional education groups; appropriate philanthropic agencies; social, cultural, medical, and business agencies; USOE Title III staff; Washington Superintendent of Public Instruction staff; Washington Congressional delegation; state legislators; and the mass media.

The Washington adoption and adaption program employs a "3 X 3 system." LEAs interested in a successful project apply to the Washington Title III bureau to have the project installed in their area. The state arranges for the close interaction of the LEA that developed a project with a maximum of three LEAs wishing to install it. At the completion of the full project cycle, each of the LEAs adopting the project in turn assists in installing it in three other locations.

The State Administrator's Manual

In some preceding pages, and in several of those following, reference is made to the State Administrator's Manual. This manual is provided by USOE as a service to the states to "provide a base of common understanding among state educational agencies. A base for building accountability into projects and programs is included also, to assist state education agencies in their role as educational change agents" (p. iv). The California SDE reports that it relies on this publication to interpret its responsibility to the federal legislation, rather than attempt its own interpretation. The handbook and the state legislation are its main considerations in the development and maintenance of the state plan.

This manual is a significant policy tool for USOE. Enforcement of the federal requirements in the U.S.C. and the C.F.R., in this instance, is accomplished through the interpretation of the law by USOE and through providing examples for programming that are assured of USOE acceptance and are easily adopted across states. Where significant, the resulting uniformity of state responses was noted in preceding sections, particularly the section on "Establishment of Projects Program."

IV FORMAL POLICY CONSIDERATIONS AT THE STATE LEVEL--THE CALIFORNIA EXPERIENCE

In this section, we explore the policy sources that generated the California state plan's "State Program Requirements." We have chosen California as an example of this interaction because of the state's highly articulated state Education Code, which makes the analysis more understandable to readers unfamiliar with state education law.

The preceding section focused on the federal program requirements, outlining the state's responses as evidenced in state plan provisions. In this section, the focus shifts to the SDE, and we discuss the state policies that directly influence the Title III office's writing of the state plan. To aid the discussion, the four categories of state program requirements (Figure VII-1) will again be used, this time to demonstrate the interaction of agents, policies, and activities at the state/federal level.

The discussion of each category is accompanied by a table that summarizes the relevant state policies and the federal requirements. The state plan provisions that result from the two sets of policies are also shown to illustrate the interaction of the two sets of mandates.

California Response to Administration Requirements
(Table VII-7)

Title III mandates require that the program be administered by an SEA under the policy guidance of an SAC [20 U.S.C. 844(a)(1)(A)] (Table VII-7, Box C). In Section 576 et seq. of the California Education Code, the state legislature designates the Educational Innovation and Planning Commission as the SAC for Title III (Table VII-7, Box A). This legislation

Table VII-7

STATE LEVEL CONSIDERATIONS AFFECTING THE TITLE III CALIFORNIA STATE PLAN PROVISIONS FOR PROGRAM ADMINISTRATION

California Laws and Other Considerations	California State Plan Provisions	Federal Laws and Regulations
California Ed. Code Section 576 The Educational Innovation and Planning Commission shall be the SAC for Title III in California and shall have the powers, duties, and responsibilities prescribed by Title III California Ed. Code Section 577 The Commission (as the Title III SAC) shall assist the SBE and SEA (as the SEA) Establishment of State Advisory Commission, California Ed. Code 576, Educational Innovation and Planning Commission One member of Assembly--appointed by Speaker of Assembly One member of Senate--appointed by Senate Committee on Rules One public member--appointed by Speaker of Assembly One public member--appointed by Senate Committee on Rules One public member--appointed by Governor Fifteen public members--appointed by State Board of Education: One elementary school teacher One secondary school teacher One special education expert One representative from interests in higher education One urban education expert One member of a governing board of a school district One representative from private school interests One representative from low-income, disadvantaged areas Three private industry representatives interested in educational innovations and communication Two representatives from guidance and counseling interests Two representatives with general interests in education A	State Plan Section 2.1.1 The State Advisory Commission for Title III shall be the Educational Innovation and Planning Commission This group complies to Section 576 of the Education Code, which requires that the Commission by composed of: Professional members Lay members Technical experts Educational specialists B	20 U.S.C. 844a(a)(2)(1)(A) The State Advisory Council ... shall be appointed by the State Educational Agency, and be broadly representative of the cultural and educational resources of the state and of the public, including persons representative of: Elementary and secondary schools Institutions of higher education Areas of professional competence in dealing with children needing special education because of physical or mental handicaps 45 C.F.R. 118.3(a) ... including persons representative of: Elementary and Secondary schools Institutions of higher education Areas of professional competence in dealing with children needing special education because of physical or mental handicaps Areas of professional competence in guidance, counseling, and testing Children from low-income families and other low-income individuals 20 U.S.C. 844a(a)(2) The SAC will provide policy advice to the SEA, recommend action on project applications, evaluate Title III programs and projects, and prepare an annual report 20 U.S.C. 822a(2)(1)(A) The state plan shall designate authority under state law to participate in Title III, citing state laws C
Sections 576-582.1 of the California Ed. Code Section 577A--The Commission shall have the power to: Review and recommend to the SBE action on Title III proposals Report activities to SBE for transmittal to: Governor Legislature Assist the SBE and the SDE in planning, development, and improvement of state educational programs Make evaluations and promote and approve innovative programs and schools Section 588.5--The SBE costs of program administration are covered by Title III funds pursuant to Title III requirements D	State Plan Section 2.1.2 Advisory Advise SBE on the preparation and policy matters arising under the administration of the state plan Develop criteria for approval of applications Specify priorities on projects and funding Review Review and make recommendations to the SBE for action on all Title III projects Evaluation Devise and apply criteria for an annual evaluation of projects Make on-site evaluations when deemed necessary Report Make an annual report to Commissioner of USOE and to National Advisory Council listing all activities, recommendations, and evaluations (to be forwarded by the SBE), with comments and recommendations from the SBE) State Plan Section 2.1.4 Chairman of Commission informs the Superintendent of Public Instruction of support service needs The SPI provides to the extent feasible the technical, clerical, and professional assistance in accordance with the standard practices of the California State Personnel Board E	

sets forth in detail the composition, powers, and duties of the Commission. Section 2.1.1 of the California State Plan draws on this information in response to the Office of Education's mandate on the development of a state administration (Table VII-7, Box B). In fact, the state plan does not elaborate on the nature of the SAC but merely directs USOE's attention to the state Legislation.

Similarly, the California State Board of Education is designated by Section 577 of the Education Code as the responsible agent for the administration of the Title III program (Table VII-7, Box D). Section 2.2 of the state plan makes this assurance to the Office of Education. Thus, both the state plan and the state law set the Title III program firmly within the goverance of the larger State Education Agency. Both policy sources specify that the "Department of Education shall administer and enforce all laws of the state required to be administered by the State Board of Education" (California State Plan, Section 2.2.1c), and that within the SDE is a Division of Instruction, which has a Bureau of Instructional Planning and Development.* This office, the state plan assures, "will administer, under the State Board of Education and the State Superintendent of Public Instruction, this the California State Plan" (California State Plan, Section 2.2.1d).

In each instance in which the California state plan provisions have been determined by state law, the plan cites and quotes the legislation, as opposed to restating it as though it emanated from the state Title III office. By employing this practice, the state program protects itself from being trapped in a policy conflict. As stated in the State Administrator's Manual, the state plan is a contract between the states and USOE.

---

*The California SDE Division of Instruction is the specific agent within the state government that handles Title III. Title III is the only program for which this office is responsible.

Thus, the Title III office is legally obligated to meet the terms negotiated in the state plan. It is also obligated, as a branch of the state government, to carry out the responsibilities delegated to it by the state government. By assuring USOE that it will carry out the California law covering specific provisions required in the program, the Title III office protects itself from becoming contractually obligated to USOE to perform activities for which it has no legal authority.

In general, the legislative directives found in the Education Code on the organization of the Title III administration are detailed enough so that the options the federal legislature allows the states regarding the Title III administrative structure are fully decided in the state code. This moves the focus of inputs on the administrative structure of the Title III office from the agency level to the legislature. However, other agents in the state government do have formal input to the process at other points. For example, Section 576 of the Education Code (Table VII-7, Box A) designates several legislative members to the SAC, who, according to the federal regulations, have full voting privileges as members of the Commission. However, because of California Attorney General Opinion No. 65-291 (March 15, 1966), which states that the legislative members serving on advisory commissions may not be voting members since this would create a conflict of interest under California law, the SAC legislative representatives are not allowed to vote on Title III policy matters. Consequently, only 15 members of the SAC may vote; accordingly, the legislative representatives rarely attend the SAC meetings.

California Response to Critical Needs Assessment Requirements
(Table VII-8)

Federal legislation requires that the state's critical needs in education be identified and reported in the state plan (Table VII-8, Box C). These needs then become the goals toward which each state is to orient its

Table VII-8

STATE LEVEL CONSIDERATIONS AFFECTING THE TITLE III CALIFORNIA STATE PLAN PROVISIONS FOR CRITICAL NEEDS ASSESSMENT

California Laws and Other Considerations	California State Plan Provisions	Federal Laws and Regulations
Office of Program Planning and Development, California State Department of Education, issued the following on April 23, 1971: Public school goals Organizational goals Process goals Seventeen unranked priority areas adopted by the SBE State Department of Education Memo The goals and priority statements are to be used as policy guidelines in the development of program objectives Ⓐ	State Plan Section 2.3.1.2--California critical needs Basic skills (reading and mathematics) Drug abuse Bilingual-bicultural education Career education Conservation education Conflicts on secondary school campuses Early childhood education Guidance and counseling services Ⓑ	20 U.S.C. 844a(b)(1)(A); 45 C.F.R. 118.8(a) State plan shall identify the critical educational needs of the state, considering geographic areas and population groups Ⓒ
Management Memo DE 71-72 (December 16, 1971) Established a work outline for a California State Department of Education Master Plan (to be done by the Office of Program Planning and Development with Title V Funds) Joint Legislative Committee on Educational Goals and Evaluation and Assembly Concurrent Resolution 127 of 1971 (funded by State General Fund) Ⓓ	Operational outline for SDE Development of a Master Plan included as "Attachment 1" Ⓔ	20 U.S.C. 844a(b)(1)(A); 45 C.F.R. 118.8(a) State plan shall describe the process by which needs were identified, citing objective criteria and procedures for data collection and translation Ⓕ
California Ed. Code Section 581 Participating school districts shall submit at least an annual evaluation of the projects Ⓖ	Ⓗ	Critical educational needs must be determined on an annual basis Ⓘ

projects program. The State Administrator's Manual is specific regarding USOE's expectations on the design of the critical needs assessment procedure. This manual provides the state Title III offices with 26 "criteria for determining the quality of an educational needs assessment strategy" (State Administrator's Manual, pp. 26-27) on which it bases the acceptability of the provisions for assessment of critical needs. In the state plans, USOE requires explanation of both the process of needs identification [20 U.S.C. 844a(b)(1)(A)] (Table VII-8, Box F) and the information generated from that effort (Table VII-8, Box C). In response to this mandate, the California state plan initially used as its critical needs the funding categories established by the state and federal requirements and did not conduct an additional needs assessment.* As Table VII-8, Box A, indicates, however, the California Title III office has changed this provision. Now the state determines the critical needs to be addressed in the program by selecting from the list of goals and concerns adopted annually by the California SBE those areas relevant to the mandate of the Title III program. The state plan notes this arrangement and specifies that liaison activities be a regular responsibility for one of the program's consultants; this consultant coordinates the Title III critical needs requirements with the larger SBE state needs assessment program.

Two primary advantages favor this arrangement. The first and most obvious is efficiency. Because the Title III office does not have to mount its own critical needs study (which would merely repeat part of the larger state efforts), the program realizes considerably savings. The

---

*The federal and state funding category requirements are:
- 20 U.S.C. 844a(b)(7) and (8)
  - 15% for handicapped
  - 50% for pilot projects and exemplary programs
- California Education Code Section 580
  - 50% for K-6 reading and mathematics projects.

state plan budgets only $18,000 for critical needs assessment to pay for the liaison activities of the part-time SDE consultants to the program.[*]

The second reason that the Title III office relies on the goals set by the SBE, as opposed to developing its own, offers an insight into the operation of the Title III office as an example of a state agency participating in a federal program. The California Constitution (Article IX, Section 5) reserves to the state sole authority for operation of the state education program and delegates responsibility to the SDE for carrying out the duties and responsibilities in the state Education Code. As an agent of the SDE, the Title III office has no legal authority except as derived from the state government. Taken together, these provisions mean that the Title III office not only is legally bound by state policies that fall within its mandate, but also (regardless of the federal view of what the Title III office should accomplish) can operate only in the areas in which it is authorized to do so by the state. Thus, when the SBE issues a policy statement that identifies the educational needs and goals to be pursued, the Title III office is obliged to address the areas that fall into its jurisdiction. Although the law does not preclude the Title III office from adding additional goals within its authority, an SBE memo and the state plans clearly require the information needs of the Title III office for the determination of critical needs to be taken from the two state studies (Table VII-8, Box A).

Thus, even though the federal requirements for Title III mandate a critical needs assessment program, the Title III office has only the authority as based on the Education Code to use the information generated by the two larger studies, and it must form its state plan contract with

---

[*] Nebraska budgeted $42,241 for needs assessment in its FY 1973-74 plan, and Washington for the same period set aside $30,000 for this task.

USOE based on this power. Ruling on this particular point, the State Attorney General (Opinion No. CV71-126, August 17, 1971) clearly stated this policy:

> The State Board of Education has only those duties and powers bestowed by the Legislature.... The Legislature clearly has the power to restrict the discretion of the State Board of Education to allocate any funds, including those received under Title III ESEA.

Obviously, the state plan provisions for adopting the relevant SBE needs and goals as the Title III critical needs and the use of information generated by the two state critical needs studies to determine what other goals and needs should be set for the program were not merely a convenience for the Title III office; rather they were a necessity imposed by higher level policy agents in the state government.

California Response to Projects Program Requirements
(Table VII-9)

The establishment of a projects program is highly circumscribed by federal requirements, most of which address procedural concerns and the formulation of equitable review criteria. To these federal requirements, the Title III office in California must add the California Education Code mandates in Sections 578 through 580. These two sets of requirements and the resultant Title III policy in the California state plan are listed in Table VII-9.

In California, the state plan sets up a 350-member Panel of Experts, selected by the SBE, to assist in the assessment of project proposals (Table VII-9, Box D). Section 2.3.2 carefully outlines the criteria to be used by the POE for approving projects. Eleven of these criteria are taken directly from the State Administrator's Manual. To these requirements, the state plan adds that project proposals must show "adequacy of evidence that the proposed project will supplement the regular school

Table VII-9

STATE LEVEL CONSIDERATIONS AFFECTING THE TITLE III CALIFORNIA STATE PLAN PROVISIONS FOR THE PROJECTS PROGRAM

California Education Code	California State Plan Provisions	Federal Laws and Regulations
The following sections of the California Education Code are of general applicability to the projects program and are therefore, not aligned with the more mutually responsive state plan previews and federal requirements Section 578--Allocation of funds Geographic spread of state Three-year limitation on grants Applications show evaluation/cost-effectiveness (insofar as practicable) Section 578.5 No more than 15% funds for special education projects No less than 50% for purposes of Section 580 Money reserved by SBE pursuant to Section 580.1, 580.3, and 582.1 shall not be considered for percentages Money for special education must not be less than 15% Section 580--Priorities Language development and mathematics In- and pre-service training for K-6 teachers Section 580.1--Project criteria Activities funded not part of another federal/state program Proposed activities may not supplant other federal/state programs Priority to K-6 schools with low reading scores on Miller-Unruh Reading Test Tax effort and evaluation design Section 580.3--SBE reservation of money SBE may reserve funds for special demonstration projects Section 581--LEA must submit [illegible] evaluation to SBE Document improved achievement levels of students Section 589--Special education projects must meet standards prescribed by federal reports Ⓐ	Assurance that SBE will update and disseminate Title III guidelines on a regular basis to LEAs Assurance that the SEA will consult with LEAs on Title III matters, particularly requirements, applications, and the like SBE will assist LEAs in: Planning innovative or exemplary programs and projects Establishing or expanding such programs and projects Establishing services or activities that utilize educational practices	20 U.S.C. 844; 45 C.F.R. 118.23(a) SEA shall establish procedures to disseminate Title III information and stimulate applications for funds B
	A Review Team is selected from the Panel of Experts and professionals from within the SDE Projects are individually reviewed, and rated against themselves and against SDE baseline information List of recommendations is given by Review Team to Education Innovation and Planning Commission for review and recommendations for transmittal to SEA	C
	Consists of a continuously updated list of approximately 350 First list is compiled by SDE on basis of solicited nominations from educational agencies, community agencies, business and industry; Educational Innovation and Planning Commission chooses Master List from list of nominations submitted by SDE	20 U.S.C. 844(b)(3); 45 C.F.R. 118.23 SEA shall establish a Panel of Experts to review local project applications D
	Criteria taken verbatim from State Administrator's Manual put out by USOE, Section III, D, 1 (p. 28) Additional California criteria Proposed project must supplement the regular school program Adequacy of plans for eventual adoption of project by LEA	20 U.S.C. 844c(b)(1); 45 C.F.R. 118.12 State plan shall establish criteria for equitable distribution of Title III funds, considering population distribution, distribution of relative needs, and resources of different groups within state E
	When two proposals are equal by all criteria common to SPs and federal requirements from State Administrator's Manual put out by USOE, Section III, 4, R (p. 30), then consider: Number of funded Title III projects already operated by LEA Number of Title III projects previously funded for operation by LEA Total funds received by LEA since inception of Title III program in California	20 U.S.C. 844(b)(1); 45 C.F.R. 118.8(c) State plan shall describe criteria used to evaluate project applications F

program, and "adequacy of plans for eventual adoption of the project by the sponsoring local education agency" (California State Plan, p. 18). Section 2.3.10 sets the program calendar and establishes the process for the disposition of proposals from the LEAs. Finally, as required by California Education Code Section 577.5, the state plan also specifies that "all projects recommended by the Commission (the SAC) shall be submitted to the State Board of Education for its approval." This section accords with the federal requirements authorizing the SEA to hold the final decision on project funding. Beyond the requirements noted, however, the legislature has left the specifics of the actual review process to the Title III Bureau within the SDE.

Our study of California's projects program has generated three observations relative to the way the Title III office writes the state plan. First, the office has some planning discretion, even after complying with all the state and federal regulations. Instead of exercising that discretion by developing their own specific objectives in the state plan, the office includes only the state and federal requirements, thereby leaving as much room for later administrative discretion as possible.

In contrast, however, the provisions for review of rejected applications are specific. It is significant that departure from the norm falls under due process. By establishing a detailed procedure for such a sensitive governance area, the state plan contract protects the administrative decision makers from emabarrassing conflicts and disputes about what to do in such cases.

Second, federal Title III requirements mandate that project money not be used to supplant state money in the LEAs [20 U.S.C. 844(a)(3)]. This provision, however, does not consider the per capita based state aid in areas of declining enrollment. In 1974, the Title III office did not know until final enrollment figures were in whether the number of pupils served would increase or not. If the number had diminished, the average daily attendance (ADA) funds would have gone down, and based on federal legisl[illegible] for Title III [20 U.S.C. 844a(c)] the California program would have received only half its allotted funds. The Education Budget for California did increase, however, in 1974; thus, the Title III program received its full allotment.

The third observation is that, in at least one instance, a former policy can be detected in current agency activity. This policy concerns the funding level of a program that was initially Title V-A of the 1958 NDEA. When this program was subsumed under Title III after passage of the Education Amendments of 1970 (P.L. 91-230), no mandates were put on the funding level to be maintained; however, the Title III office has maintained the funding of this program at its NDEA level and thus sets aside about 15% of the project funds for guidance and counseling.

California Provisions for Dissemination of Project Results
(Table VII-10)

The California state plan carefully distinguishes between dissemination of information about the Title III program and diffusion of promising projects. According to Section 2.3.12.1 of the plan, "dissemination means producing and distributing printed or audiovisual materials among selected audiences to create awareness and stimulate interest in selected projects and validated practices that are solutions to needs or problems" (California State Plan, Section 2.3.12.1). The state plan then sketches the activities it will perform to meet its definition of dissemination (Table VII-10, Box E).

Section 2.3.12.1 of the state plan defines diffusion as "the process by which a validated practice or a problem solution is spread from the field test to its ultimate users or adopters. Diffusion involves the

Table VII-10

STATE LEVEL CONSIDERATIONS AFFECTING THE TITLE III CALIFORNIA STATE PLAN PROVISIONS FOR DISSEMINATION

State/Other	California State Plan Provisions	Federal Laws and Regulations
California Ed. Code Section 581 Annual evaluation due from LEA to SBE California Ed. Code Section 581.1 Annual evaluation due from SBE to government and legislature Ⓐ	Evaluations 2, 3, 11, 4 SDE Office of Program Evaluation has specific response for analysis of project data Ten in-service workshops to train (in areas of state) in evaluation methods Pre-/post-testing criteria must be employed (instruct. components) Midyear evaluation and end-of-year report Comprehensive end-of-project report Ⓑ	20 U.S.C. 844a(b)(6); 45 C.F.R. 118.8(b) State plan shall establish a program to evaluate effectiveness of Title III projects by the State Advisory Council Ⓒ
California Ed. Code Section 578 Information concerning exemplary projects shall be disseminated to all school districts in the state that maintain the grade levels involved in such projects Ⓓ	Dissemination program Emphasis on potential student benefits of Title III projects Focus on professional education community, general public Defined as distribution of print or audiovisual materials to create interest in selected projects Activities (SEA) Publish newsletters Design conference exhibits and presentations Maintain library of selected products Maintain information retrieval system Annual communication to public on selected projects (LEA) Keep teachers and administrators in geographic area informed on project If SEA deems project outstanding, inform general public in geographical area Ⓔ	20 U.S.C. 844a(b)(6); 45 C.F.R. 118.9(c) State plan shall establish a dissemination program for evaluative information about Title III projects Ⓕ
California Ed. Code Sections 582 and 582.1 The SAC shall identify and submit to the SEA 5 to 10 projects as "exemplary projects;" not more than 5% of the federal allocation shall be reserved for incentive grants to the school districts that have operated exemplary projects during the preceding year; such funds shall be used by the districts to expand and adapt the projects Ⓖ	Adaption/adoption Covered in Sections 582 and 582.1 of California Ed. Code Project LEAs petition SDE to receive an "incentive grant" to become a demonstration center for project SEA and POE review incentive grant applications SEA and Educational Innovation and Planning Commission visit projects of interest to them on basis of SEA and and POE recommendations SEA and EIPC make recommendations to SBE SBE awards incentive grants Ⓗ	20 U.S.C. 844a(b)([illegible]); 45 C.F.R. 118.8(d) State plan shall establish a program for the adoption and adaption of promising Title III project components Ⓘ

following phases: 1. Awareness/interest (dissemination), 2. Visitation/demonstration, 3. Staff training, 4. Implementation (trial), and 5. Evaluation. Diffusion is a much larger concept than dissemination and requires more planning and greater allocation of resources to be effective."*

Most important to development of the state plan provisions for the California dissemination effort, however, are three sections in the California Education Code. Section 578 limits funding for any particular Title III project to three years; Section 582 requires the SBE to select "5 to 10 projects conducted during the current year as 'exemplary projects'"; Section 582.1 allows incentive grants for exemplary projects, but limits the amount to no more than 5% of the federal Title III allocation.

Unfortunately, these laws force the Title III office to administer an overcomplicated and underfunded incentive grants program. Having lasted three years, a program may not be refunded by Title III. However, the project group can receive funding as an exemplary project by applying for an incentive grant, which necessitates a new project application. Such an application must be considered with all other new program applications and must, of course, comply with federal requirements for new programs. California SDE staff have indicated frustration over this obligatory new application process and its attendant confusion. Additionally, they have indicated that the 5% ceiling on dissemination expenditures is inadequate.

The SDE is seeking to change these policies through Senate Bill 694, which is pending in the state legislature. If passed, the law will lift the three-year limitation from exemplary projects, allow up to 25 such projects, and raise the dissemination budget to 15% of the federal Title III allocation. Of importance is that the SDE is active in the state political process relative to this law. Apparently, such participation is necessary in states such as California, which have legislatures interested in regulating education.

---

*In California, the SEA has changed its focus since the 1974 state plan, the year under study here. The dissemination bureau within the Title III office has shifted to the incentive grants program. The SEA already receives about 350 proposals, of which it can fund about 50; attempting to bring in more proposals would only frustrate the program and the LEAs.

V THE OPERATION OF A STATE OFFICE--THE CALIFORNIA TITLE III DISSEMINATION EFFORT

In this section, we discuss one phase of the Title III program in California--the dissemination effort. We have illustrated the spectrum of state responses acceptable to USOE in meeting the Title III mandates and have shown the state level policies that molded the California state plan. We now carry the analysis further by illustrating the dissemination operation of the Title III office under the policy set in the state plan.

As previously noted, the basic dissemination effort is accomplished through the incentive grants program. These grants allow projects to continue in operation for facilitating the adoption and adaption of the innovative projects in other districts. The Title III office works with the directors of incentive grants to get information about their projects to potentially interested districts around the state. The tenor of this activity is set by the following informal policies noted from interviews with persons in the California Title III dissemination office.

- Because the number of Title III proposals greatly exceeds the number that can be funded, dissemination funds are not needed for advertisement of the program. Hence, money is not expended for this activity.
- Only validated projects, proved successful, are disseminated. Disseminating ideas of dubious merit is a disservice.
- So long as the project districts are making efforts to meet their dissemination agreements, the methods they employ and the regulations they set should be of their own choosing (e.g., times and places for visitation).
- The proper role of the state Title III dissemination office is that of information broker. It should provide a forum for communication.

- Initial project design should be made with an eye to facilitating dissemination. Specifically, projects should seek to determine the set of component problems to be addressed by the project, and the procedures by which each problem will be addressed and validated. The potential for adoption is thereby enhanced and projects or components of projects may be more easily transplanted.
- The Title III office will not demand that a project apply for a dissemination grant. The number of projects wanting to disseminate greatly exceeds the number allowed by law. Hence, the Title III office would be unjustified in soliciting an incentive grant application from a reluctant LEA.

The incentive grant effort of the state Title III office has two basic activities: the traveling seminar and the intensive producer/consumer workshops to facilitate project adoption/adaption. At the beginning of the academic year, the dissemination office and the California County Superintendent's Association initiate a speaking tour to six regions around the state. Each region is under the aegis of a chairman who works with the dissemination office to determine dates and generate interest for seminars in the local schools. A usual seminar visit lasts only one day, during which nine projects are presented in 50-minute talks. After noting a consistent slump in afternoon attendance, the dissemination office decided to conduct three sets of simultaneous talks in the morning, and to use the afternoon for traveling to the next seminar location. Title III dissemination funds cover the traveling seminar and, as far as possible, later in-depth visits. Funds for visits, however, are generally exhausted by about February of each year.

The Title III dissemination office relies entirely on the efforts and expertise of the project producers to convey to potential adopters the technical information concerning their projects and to resolve with them any problems that might impede adoption of the project. Interviews with several County Education Offices showed that both project producers and project consumers have a comfortable working relationship with the Title III dissemination office.

Four findings emerge from our study of the California dissemination effort:

- The Title III dissemination office generates as little formal policy as possible. Because it must deal with both local and state policy, its operations appear somewhat ad hoc and more concerned with success than with uniformity or procedure.
- The California approach to dissemination entails an exhaustive year of travel and consulting for the project producer. It is impossible to maintain regular classroom duties and be responsible for an incentive grant at the same time.
- The County Offices of Education are supported in large part by grant money such as Title III. They are established professionally to compete for, administer, and disseminate projects. Spokesmen for one office stated that perhaps 50% of their certified staff would have to be released if all grant support were lost.
- The dissemination tactics used for Title III are compatible with the other project programs of the LEAs. One set of guidelines for projects in general covers Title III as only one of many LEA resources.

VI CONCLUSIONS AND RECOMMENDATIONS

The value of analysis, for a pragmatic society like ours, lies in the amount of increased power it lends to the policy planning and assessment process. Our analysis of Title III[*] has resulted in:

- Conclusions about how policies interact in Title III planning.
- Conclusions about the utility of this approach to the study of policy and KPU in general.
- The use of this topic in developing and testing the "Analytic Framework for Educational Policy Analysis."

Conclusions on Policy Interaction in Title III Planning

The states have and jealously guard their legal authority over public education, but the federal government provides the overwhelming proportion of funding for flexible KPU efforts. Thus Title III is operated in an environment in which the federal government provides the resources and the state governments hold the bulk of authority for managing those resources. Apparently, this puts state education agencies between Scylla and Charybdis; they must answer to the federal government for the resources that keep their efforts alive and to the state government for the authority to engage in those efforts.

However, this tension can be a source of bureaucratic freedom for a bold Title III SEA staff. The reasons are as follows:

---

[*] Because the central task in the Normative Structuring Project is the development and testing of an analytic framework, this discussion was developed only far enough to serve in that task.

- Federal Title III policies are all based on incentive; that is, states fall under their jurisdiction only if they want to pick up federal support, which is the incentive. Because no state has refused this support, the federal government has been able to establish the framework for state responses and to specify the domain open to negotiation.
- As the administrative arm of the state legislature, the SEA must negotiate within the authorization and limitations placed on it by state law. This allows the SEA to cite restrictions and precedent to federal agencies when it negotiates its response to Title III guidelines.
- Because there are differences among states--reflected in their state codes--there are and will continue to be differences in their responses to federal initiatives such as Title III.
- Capable staff in SEA Title III offices could balance federal and state requirements to maximize their own options and to minimize stress from either level of government. This strategy entails incorporating only the minimum federal and state constraints in the state plan.
- SEAs must construct state plans to avoid accepting mandates or goals they will not be able to enforce at local levels. This requires knowing the policies and operating procedures of the local education agents. On the other hand, by incorporating their agenda, carefully worded, into the state plans (even policies not strictly required by the states or the federal government), the agency can bolster its authority over local agents relative to questionable points.
- Once in effect, state plans create constituencies. While these constituencies make it difficult for the SEA to effect major changes in Title III operations, they are allies for the SEA in its defense of programs from outside attack.

Conclusions on the Utility of This Approach to the Study of Policy

This type of analysis has utility in that it reveals implications for Title III and similar programs, and it suggests ways to monitor policy in general.

Concerning Title III, the analysis is an effective method for showing how SEAs are constrained in their attempts to set up and run federally sponsored programs. The approach shows the policies that are sources of tension between federal and state agencies and suggests how SEAs can seek resolution of such tensions to their own benefit. Finally, this approach reveals the real degree and form of state sensitivity to "local control," which all states claim to have.

Concerning the monitoring process itself, this study suggests that, where policies are clustered around programs, there is a key set of core policies (in this case, those regulating the construction of a state plan). This key set is a clear function of the purpose of the program. By identifying this purpose as the purpose of analysis, one can employ an efficient strategy for identifying the most significant policies.* The analyst should should take note, however, that the analytical framework does not offer the researcher an effective means of investigating or discussing the use of policy for any other purpose than as stated. For example, there is no way to indicate instances in which formal policy can be used as an enforcer on an informal policy agenda.

Recommended Studies for NIE in Anticipation of a Monitoring System

As a result of this analysis, the following three studies seem desirable relative to further preparation for a monitoring network.

Study One--In researching this topic, we found that a significant number of LEAs are beginning to contract with service agencies for services such as the codification of their policies and the monitoring of policies emanating from higher levels of governance of which they must be aware. The Southern Carolina School Boards Association, for example, has been active in policy codification for various LEAs in the Southeastern states. This group is able to do an initial codification task in a typical LEA for between $2500 and $5000, with the cost of updating running about $400 per year. In California, a publication entitled the California School Law Digest keeps the LEAs abreast of the judicial decisions affecting the operation of California schools. This digest is published monthly and costs $30 per year.

---

* Locating records of significant public policies is not a serious limitation. Most policy is on public file and fairly well indexed. Moreover, even local district policy is increasingly being codified and indexed because of court and public pressures for open access and due process.

We hypothesize that the general adoption of these services by the LEAs would greatly enhance NIE's policy-monitoring capability. Instead of attempting to build an extensive policy information bank--extremely expensive both in terms of initial development and updating--NIE policy analysts would need only to learn how to use the various codes and other services being produced at the local and state levels. For this reason, we suggest that NIE investigate the various services available. By informing and encouraging the LEAs relative to the availability of the various legislative information services, NIE might increase further the rate at which local education policies are becoming codified and hence available in a realistic sense for policy analysis.

Study Two--To locate the significant state and federal policies for this topic, our staff members found it necessary to learn the basic techniques of legal research. Although this research skill is not difficult to acquire, we suspect that few educational researchers or policy analysts possess this particular skill, since it is usually taught only in law school. We suggest that NIE consider ways in which to make these skills available to researchers, both in-house and in the field.

Study Three--One of the key phenomena pursued by the initial Title III research effort was the existence of policy conflicts and debilitating overloads of policy for specific agents. Although we examined only a limited number of agents, we found these concerns to be unfounded. Moreover, we noted that the educational governance system provides a number of ways in which agents can and do deal with situations to avoid policy conflicts or overloads. These range from delegating authority to lower level agents to changing laws.

We feel that this is an important finding, but it is based on evidence too superficial to be definitive. Therefore, we suggest that NIE study the variety of ways in which agents respond to potential policy conflicts or overloads, to determine whether they truly present debilitating problems or, as our preliminary observations indicate, whether the problems are mostly myth.

Miscellaneous Conclusions and Recommendations

The basic intent of the Title III study was to contribute to the generation of the analytic framework, rather than to investigate Title III. However, we came across several findings that do not spring from the approach settled on as the analytic framework; believing this information to be useful, we offer it as a final "grab bag" of observations on Title III.

- Relative to the size of its investment in the Title III program, the federal government receives large dividends along several dimensions. For example, Title III:
  - Provides a communication link between the federal government and the states on their perceived needs and interests in KPU.
  - Provides a communication link among the states concerning alternative ways to approach the doing of KPU.
  - Focused the authority for determining the critical needs of education on the SEA.

  - Strengthened the SEAs through provision of a revenue source and purpose.
  - Generated discussions and research at every level of the educational administration within the states concerning the nature of the educational problems facing the state and possible innovative solutions.

- One agency administrator noted that most project applications being received were not innovative or creative in their approach to critical needs. A study might be done to assess the qualities of the KPU agenda of classroom teachers. Perhaps the classroom teacher's needs for KPU are different from the services offered by Title III. This study should assess the application process for Title III projects, and compare the KPU activities in which teachers search for funds from programs, such as Title III, with those in which teachers merely participate without seeking external funds.

- Researching various states revealed interesting alternative project funding patterns. NIE might find it useful to assess the relative merits of various arrangements. For example, California has both a projects grants program and an incentive grants program (discussed earlier). The Nebraska projects program operates two basic types of grants: the usual-sized Title III projects, and a minigrants program for special one-year projects not to exceed $2500.

- To prevent problems, an inquiry into the treatment afforded teachers in federal education programs might be judicious. Are they equitably compensated for their efforts? Does the program carry adequate incentives to encourage participation or does it carry disincentives that sap the interest of teachers? For example, the incentive grant program in California requires such a rigorous effort on the part of the teachers that it is inadvisable for a teacher to hold a regular teaching position and an incentive grant at the same time.

- Although the fund allotments for Title III are small compared with the total budget for education, they represent a disproportionately large amount of flexible spending since they are earmarked for KPU and yet left open on the problems they may tackle. By inference, although education is a tremendously large industry, little money is available to the LEAs for experimentation. The governing agencies have tightly earmarked virtually all the funds coming into the LEAs. NIE should develop strategies for generating more KPU funding and getting it to the classroom.

- One requirement for the SDEs with regard to Title III is that the money be used to supplement, not supplant, local funds. This requirement was written in a time of growth for the LEAs, and the base used was the gross dollar amount of state aid delivered to the schools. With declining enrollments, this requirement has been a problem for some states. The amount of state aid is based on the ADA, and, although the funding commitment may be the same, the level may drop due to a drop in the number of students. Care should be taken that this type of requirement is not incorporated into the Title IV restructuring of the Title III program or other education programs.

VII THE USE OF THIS TOPIC IN DEVELOPING AND TESTING THE ANALYTIC FRAMEWORK FOR EDUCATIONAL POLICY ANALYSIS

The analysis of Title III presented in this paper was conducted to meet three needs, none of which was for the explication of Title III per se. The topic was investigated to provide an empirical test for the formation of the basic conceptual framework for a large NIE project entitled "A Methodology for Describing the Infrastrcture of Educational R&D." Central to this larger study was the design of an analytic framework for conceptualizing the governance infrastructure of KPU (see the main volume of this study). Incidental to development of this analytic framework was the development of a guide for using that framework.

Therefore, this analysis was conducted:

- To help create and assess the usefulness of the key ideas that eventually made up the analytic framework.
- To explore in detail one of those ideas.
- To show one of the ways that the analytic framework could be employed to organize the presentation of policy analysis.

Title III, unlike the other case studies, however, was used not so much to test the analytic framework, as to be the trial problem for the development and refinement of the set of concepts that became the analytic framework.

Analytic Framework Ideas from Title III

We found that, as a first step in the inquiry process, it is more useful to determine the focus of the inquiry and gather information to that end that it is to attempt to learn all there is to know about a topic or to formulate and test an a priori assumption about the nature of the program.

After settling on this "focus-of-inquiry strategy," for the Title III study we selected the role of the SEA, the Title III administrative agent, as our focus of inquiry and began constructing the configuration of agents and policies that give rise to Title III administration at the state level.

Characteristics of Configurations

For a thorough understanding of configurations, thinking was necessary on three levels. First, we had to divide larger configurations into their subconfigurations, and determine their elementary components. This required collecting enough information about these elementary components to understand how the configurations work internally. Finally, we had to select some perspectives with which to recognize and interpret the patterns and interconnections among configurations.

Elementary Components of Configurations

While the activities that constitute a program such as Title III can be conceptually subdivided *ad adsurdum*, there is a point below which the purpose of the activity relative to the whole of Title III ceases to be self-evident. It is this distinction that leads to the drawing out of the most elementary configuration. In addition to identifying the purpose around which to form an elementary configuration, it is necessary to know its agents, resources, and policies.

Relationships Among Components

In addition to the four characteristics that make up elementary configurations, we found it useful to know two characteristics of configurations as wholes: how they conceptually fit together as stages of larger configurations, and how they change through time. In the Title III study, we started by staging the activities assumed necessary for administration of Title III, based on a general understanding of administrative agencies and Title III. This tactic, however, proved ineffective. To account for the activity stages, we found it far more useful to put aside our preconceived ideas of how Title III might be administered and determine how to parse the activity stages based on federal policy and information in the State Administrator's Handbook.[*]

After breaking the administration of Title III into its component stages of activity, we found the information useful to the larger study for two purposes. First, the administration of Title III is very much a series of events in which the role of agents within the SEA administration varies in importance according to the subtask being performed. Breaking out these stages enabled us to understand the realistic contribution of the agents at various points in the program administration. Second, staging provides a useful technique for discussing the findings. By presenting and explaining configurations and their perceived significance at this more detailed level, we were able to explain the larger program by building a mosaic.

We found three dimensions of time to be useful as frames of reference for studying the basic configurations. The first is program evolution.[†]

---

[*] Reading and interpreting the text of legislation is an arduous, time-consuming task, especially for policies as complex as Title III. For this reason, one of the important roles of administrative agencies (in this case, USOE) is in issuing handbooks that explain and clarify the meaning of legislation. For the study of any policy, the analyst should always seek out the administrative guidelines (handbook) as an aid and check to the understanding of the policy. The State Administrator's Handbook proved to be extremely valuable in parsing the Title III staging. For a more detailed explanation of this particular document, see p. 26.

[†] Initially, we attempted to discuss the role of the SEA in the administration of Title III by tracing its evolution from the inception of the program. We found this to be an exhausting effort that yielded only marginal insights about the SEA administration role.

We noted that SEA administration activities for Title III have changed over time. The chief value in investigation of program evolution, however, lies in determining what program options have been tried and abandoned.

The second useful dimension of time is the sequencing of the above-mentioned stages of activities. Investigation of Title III reveals that SEA administration was intended to follow a particular sequence in satisfying the activity mandates. We noted the rational policy planning subtending this feature, which led us to consider the value of proper activity sequences. Our contention is that Title III administration profited by conscious attention to the sequencing of stages of activity.

The third dimension of time noted to be a valuable analytic frame of reference is the cyclic nature of some policies. In our study of Title III we found that the combination of a short cycle time (12 months) and a long procedure time for midcycle amending of the state plan meant that all amendments to the state plan are done at the beginning/end of cycles. Therefore, monitoring the state plan as the key policy in the administration of Title III requires only a yearly update of records.

The Role of the Policy Administrator

Identifying the position of authority/responsibility of any agent with respect to other agents and activities proved valuable. We found that the SEA (as both an enforce/administrator of a federal program and as a line-authority agent of the state school system) must find a way to be responsive to both the federal and the state program mandates and, moreover, must be responsive in a manner that will be workable for the agency, i.e., one that is enforceable. When considering the rationale for the SEA policies, the analyst must consider the enforcer's obligations to be both policy-responsive and enforcement-capable, or a realistic perspective is not possible.

The analysis of the SEA in the setting-enforcing-complying implementing hierarchy yielded two additional insights. Rather than noting policy conflicts as a problem for administrators, we found that adroit agents use them to strengthen their capacity to build their own agendas through challenging individual activity mandates on the grounds of a policy conflict. Second, we noted that enforcing agents will also negotiate obligatory activities with policymakers in areas within their authority on agendas they want but suspect the compliers will find objectionable. This gives them an added force of authority they do not generally seek for activities deemed to be amenable.

Formal Policy as a Data Source

Title III is the product of a political process; its features are sketched by federal legislation and detailed by the states. We found the formal policies driving this program to be information-rich data sources. Through reference to only the formal policy sources, we were able to construct the configuration of elements for Title III.

One aspect of relying on formal policy as a data source that should be noted by researchers unfamiliar with legal research is that the inquiry process only begins with reading the statutes. The researcher must also locate the legal guidelines issued by the enforcement agency, the court cases bearing on the study, and (if any exist) opinions of attorneys general. Once this comprehensive effort is completed, we conclude, on the basis of the Title III research, that the researcher will have the complete set of data necessary to generate configurations, which can then be examined within the frames of reference noted above.

Gathering data from formal policy is valuable along other dimensions as well. Such data represent the activities agreed upon by agents, as opposed to interview-based research that represents only the composite opinion of the agents interviewed. Also, certain of the formal policy negotiation forums are reserved for resolution of differences. By noting what portions of the activity have been taken into a forum for resolution of problems, such as a court case or attorney general opinion, the researcher achieves insight into tension points in the program. By noting the forum sought, the researcher can assess the intensity of this tension.

A final factor enhancing the utility of legal research for data gathering is the utility of the legal annotation. In an annotated code, the publisher provides the researcher with full information on the legal evolution of the policy, points out the other sources of data on policy, and notes any legal journal, digest, or legal encyclopedia references relating to the policy. Mastering this research technique results in rapid data gathering.

How the Guide to the Use of the Analytic Framework Was Employed to Organize This Title III Analysis for Written Presentation

Simultaneously with the development of the analytic framework, the project staff struggled with the problem of efficient application of the framework to given analytic problems. The result of the struggle was the creation of a five-step method whose use is illustrated in Case Studies I and IX.

Because the specifics of this method were created after most of the Title III data had been collected and organized, it was not too useful for the Title III analysis. In fact, much of the trial and error of conducting the Title III analysis influenced the development of the method. However, the method did contribute to organizing the results of the analysis for written presentation.

Annex

TAXONOMY OF POLICIES CONSIDERED SIGNIFICANT IN THE STUDY OF THE TITLE III PROGRAM

Annex

TAXONOMY OF POLICIES CONSIDERED SIGNIFICANT IN THE STUDY OF THE TITLE III PROGRAM

Policy Name	Reference Citation	Policy Type and Generation Process	Source	Explanation of Significance
Supplementary educational centers on services, Title III of PL 89-10	20 U.S.C. 841-848	Statutory Law (Enactment)	Federal (Legislative) (U.S. Congress)	Enabling legislation for Title III Program; lists federal requirements, gives authority, outlines program.
State contracts for Nebraska, Florida, Washington	State Education Agency Archives	Contract (Contract)	Federal-State (Administrative-Administrative) (USOE and SBE)	Working agreement between each state and USOE on how Title III will be run. Each state plan differs according to state educational governance characteristics.
State Administrator's Manual	Office of Education Archives	Administrative Law (Guidelines)		Explanation of federal Title III policy and suggestions for the writing of the state plan. Provides insight into the process of developing the state plan and explains the uniformity of organization of material noted in the state plans.
State educational commissions and committees [new]	Chapter 6, Sections 575-588, California Education Code	Statutory Law (Enactment)	State (Legislative) (California General Assembly)	State law giving state requirements authority, and outline for program.
California State Attorney General Opinion	California State Attorney General Opinion No. CV 71-126, August 17, 1971	Administrative Law (Order)	State (Executive) (California Attorney General)	Opinion stating that the SEA has the authority to operate only as vested by the state.

BIBLIOGRAPHY

California Annotated Education Code, "State Educational Commissions and Committees," Chapter 6, Section 575 (West's Publishing Co., St. Paul, Minnesota).

California Attorney General Opinions: Vol. 47, Opinion 65-291 (March 1966); Vol. 53, Opinion 70-30 (August 1970); Vol. 54, Opinion CV71-126 (August 1971).

California Senate Bill Number 694, Sacramento Legislative Bill Room (1975).

California State Department of Education, California State Board of Education, Operational State Plan for Title III of the Elementary and Secondary Education Act, Sacramento, California (1973).

45 Code of Regulations: Public Welfare, Parts 100-199, Washington, D.C. (1974).

Nebraska State Department of Education, Operational State Plan for Nebraska ESEA Title III, Fiscal Year 1974, Topeka, Kansas (1973).

Office of Education, State Administrator's Manual for State Plan Programs, Washington, D.C. (1971).

Superintendent of Public Instruction, Washington State ESEA, Title III State Plan Fiscal Year 1974, Olympia, Washington (1973).

U. S. Code Annotated, "Supplementary Educational Centers and Services," Chapter 24, Subsection II, Washington D.C.

Case Study VIII

THE GOVERNANCE OF KNOWLEDGE PRODUCTION AND UTILIZATION IN INTERMEDIATE SERVICE AGENCIES: BOARDS OF COOPERATIVE EDUCATIONAL SERVICES IN COLORADO AND NEW YORK

by

Thomas F. Mandel

CONTENTS

LIST OF ILLUSTRATIONS . . . . VIII-v

LIST OF TABLES . . . . VIII-v

ACKNOWLEDGEMENTS . . . . VIII-vii

I INTRODUCTION VIII-1

Organization of the Paper VIII-2
Objectives VIII-8
Background VIII-9
What are BOCES? VIII-9
Why New York and Colorado? VIII-10
Summary of Conclusions VIII-11
Issues in Governance VIII-11
Fiscal Policy VIII-12
KPU Policy VIII-13
Summary of Recommendations VIII-14
Further Studies VIII-14
KPU Monitoring and Policy VIII-15

II COLORADO: BOARDS OF COOPERATIVE SERVICES (BOCS) VIII-17

Overview of Policy Relationships for Colorado BOCS . . . VIII-17
Major Policies from Outside the BOCS VIII-17
The 1965 BOCS Act--How the BOCS Are Organized VIII-21
Responsibilities of the BOCS Board VIII-22
Responsibilities of the SBE and SDE VIII-23
Other Important Policy VIII-24
The Contracting Law VIII-24
Regional Field Coordinators Unit VIII-25
The Operation of a BOCS VIII-26
Funding Mechanisms VIII-29
KPU Policy in General VIII-30
KPU Policy in One BOCS--Northern Colorado
Educational BOCS (NCEBOCS) VIII-30
Another BOCS in Colorado--Weld County VIII-32

III NEW YORK: BOARDS OF COOPERATIVE EDUCATIONAL SERVICES (BOCES) VIII-35

Overview of Policy Relationships for New York BOCES . . . VIII-35
Article 40 of the Education Code--How the BOCES Are Organized VIII-36
    Powers of the BOCES Board VIII-39
    Reimbursement of Program Costs VIII-40
    Approval of BOCES Service Programs and Budgets . . . VIII-41
Activities and Policies of the BSDO VIII-43
BOCES Funding Mechanisms VIII-45
KPU Policy in One BOCES--Nassau County BOCES VIII-47
    CAP Policy VIII-48
    BOCES as an Influential Organization in KPU VIII-49

IV CONCLUSIONS AND RECOMMENDATIONS VIII-51

Contrasting the Two Governance Systems VIII-51
    New York BOCES VIII-51
    Colorado BOCS VIII-53
    KPU in BOCES VIII-54
Recommendations VIII-55
    Further Studies VIII-56
    KPU Monitoring and Policy VIII-57
Conclusion VIII-58

ANNEXES

A TAXONOMY OF POLICIES VIII-59

B NEW YORK BSDO CRITERIA AND GUIDELINES VIII-63

REFERENCES VIII-69

SELECTED BIBLIOGRAPHY VIII-70

ILLUSTRATIONS

VIII-1 Colorado BOCS and Major Policy Relationships VIII-18
VIII-2 Boards of Cooperative Services Action Flow Plan . . . VIII-28
VIII-3 New York BOCES and Major Policy Relationships VIII-37
VIII-4 BOCES Program Selection, Approval and Budgeting Timetable VIII-42

TABLES

VIII-1 Name of Regional Educational Service Agency, Year Established, and Number of Operating Units, by Type of Legislative Framework, January 1975 . . . . . VIII-3
VIII-2 Selected Organizational Characteristics of the Eight Legislatively Mandated Statewide Networks of RESA Units, January 1975 . . . . VIII-4
VIII-3 Selected Financial Characteristics of the Eight Legislatively Mandated Statewide Networks of RESA Units, January 1975 . . . . VIII-5
VIII-4 Selected Organizational Characteristics of RESA Units Functioning under Permissive Legislation . . . VIII-6
VIII-5 Selected Financial Characteristics of RESA Units Functioning under Permissive Legislation VIII-7
VIII-6 Key Agencies and Policy Relationships in the BOCS System VIII-19
VIII-7 Key Agencies and Policy Relationships in the BOCES System VIII-38
VIII-8 Comparison of Formal Governance Factors VIII-52

ACKNOWLEDGMENTS

The author wishes to acknowledge and thank the following persons for their assistance in providing information, and for their reviews of the draft paper for this report.

- Colorado BOCS
  - Mr. Roy G. Brubacher, Director
    Region Field Service Coordinators
    Office of Field Services
    Colorado Department of Education
  - Ms. Cheryl Chase
    Director of Product Development
    Northern Colorado Educational BOCS
  - Dr. Duane Webb, Director
    Colorado State Facilitator Project
    Northern Colorado Educational BOCS
- New York BOCES
  - Mr. John H. Bishop, Chief
    Bureau of School District Organization
    The New York State Education Department
  - Mr. Alfred Kratzert
    Director of Information
    Nassau County BOCES
  - Mr. Jack Tanzman, Director
    R&D Division
    Nassau County BOCES

David Lombardi, Research Associate, provided invaluable assistance in collecting data for and preparing this report.

I INTRODUCTION

Intermediate Service Agencies (ISAs) is a term used here to identify a whole range of organizations that undertake knowledge production and utilization (KPU)[*] and other educational activities on a multidistrict rather than a local or state education agency (SEA) basis. As part of the KPU system, they perform diverse activities such as R&D, operation of in-service training for teachers, maintenance of KPU linkage systems like ERIC, and the general coordination of KPU for their component members. Other major ISA activities include special education, vocational education, education for the handicapped, and administrative support for member organizations; in fact, non-KPU responsibilities appear more frequently as the raison d'être for intermediate agencies than do KPU activities.

The general philosophy underlying the establishment and continuing growth of ISAs is that, through economies of scale, they can provide certain services more economically and more efficiently than can their component districts or schools. From the perspective of governance, ISAs are closer to--and, by implication, can be more responsive to needs of--their potential users (mainly teachers and local administrators) than the SEAs.

> Smaller school systems in many states have combined their resources in an effort to obtain necessary services ... when it has been deemed impossible or inadvisable for them to develop such programs independently (Colella and Foster, 1974).[†]

---

[*] The term KPU encompasses all activities related to research, development, dissemination, and adoption of new knowledge for the improvement of education.

[†] A list of references follows this case study. There is an extensive literature on intermediate agencies; several key reports are noted in the bibliography.

Some forms of intermediate administrative agencies already exist in all 50 states (Lavin and Sanders, 1974). A recent report by Stephens (1975) provides detailed summaries of what the author calls Regional Education Service Agencies (RESAs) in 12 states (Table VIII-1); he groups RESAs into two categories: those authorized by mandated legislation (i.e., component districts or schools are required to join) and those authorized by permissive legislation (i.e., component members join on a voluntary basis). Stephens looked especially at governance, showing selected organizational and financial characteristics for each of the RESAs; his findings are reproduced in Tables VIII-2 through VIII-5.

This paper is part of a report on formal policies that govern KPU agencies and activities in general; here we describe the policy environment within and surrounding two kinds of ISAs that do KPU. These organization are Boards of Cooperative Services (BOCS) in Colorado and Boards of Cooperative Educational Services (BOCES) in New York.*

Organization of the Paper

The paper is organized in four sections. The introduction, objectives for this analysis, background information about the BOCES, and an abstract of our findings and recommendations make up the first section. Second is a detailed description of governance in the Colorado BOCS system; third is a description of the New York BOCES system. The fourth section is a comparison of the two governance systems, with conclusions and recommendations. In addition, a taxonomy of the major BOCES policies in both states is presented in Annex A.

---

*When referring to both organizations, we will use the term BOCES.

Table VIII-1

NAME OF REGIONAL EDUCATIONAL SERVICE AGENCY, YEAR ESTABLISHED, AND NUMBER OF OPERATING UNITS, BY TYPE OF LEGISLATIVE FRAMEWORK, JANUARY 1975

State	*Year Legislation Enacted*	*Name of Units*	*Number of Units July 1974*
MANDATORY LEGISLATION			
1. Georgia	1972	Cooperative Educational Service Agency (CESA)	16 (18 planned)
2. Iowa	1974	Area Education Agency (AEA)	15 (effective 7/1/75)
3. Nebraska	1965	Educational Service Unit (ESU)	19
4. Pennsylvania	1971	Intermediate Unit (IU)	29
5. Texas	1967	Educational Service Center (ESC)	20
6. Washington	1969	Intermediate School District (ISD)	12
7. West Virginia	1972	Regional Educational Service Agency (RESA)	7 (8 planned)
8. Wisconsin	1965	Cooperative Educational Service Agency (CESA)	19
PERMISSIVE LEGISLATION			
1. Colorado	1965	Boards of Cooperative Services (BOCS)	17
2. Michigan	1962	Intermediate School District (ISD)	58
3. New York	1948	Boards of Cooperative Educational Services (BOCES)	47
4. Oregon	1963	Intermediate Education District (IED)	29

Source: E. R. Stephens, "Regional Educational Service Agencies," ERS Monograph Series, No. 29, Educational Research Service, Washington, D.C. (1975)

Table VIII-2

SELECTED ORGANIZATIONAL CHARACTERISTICS OF THE EIGHT LEGISLATIVELY MANDATED STATEWIDE NETWORKS OF RESA UNITS, JANUARY 1975

Selected Characteristics	Georgia	Iowa*	Nebraska	Pennsylvania	Texas	Washington	West Virginia	Wisconsin
1. Minimum or maximum enrollment size specified in legislation	none	none	none	none	minimum of 50,000 students	minimum of 20,000 students	none	minimum of 25,000 students
2. Line association with state education agency	yes	yes	yes	yes	yes	yes	yes	yes
3. Performance of regulatory and administrative functions for state education agency	no	yes	yes	yes	yes	yes	no	yes
4. All local districts required to be members of RESAs	no	yes	yes	yes	yes	yes	yes	yes
5. Method of selection of governing board	appt. by local district boards	elected by convention of members of local dist. bds.	popular election	elected by convention of members of local dist. bds.	elected by adv. committee of member local dist. bds. & 4-yr. institutions	popular election	appt. by local district boards	appt. by local district boards
6. Number of members on governing board	1 each participating local district	9	1 each member county plus 4 at-large	13—at least 1 and no more than 1 from ea. local district	5 or 7	7 or 9	2 ea. participating local dist. & 1 mem. appt. by state supt.	1 each member local district
7. Method of selection of chief administrator	appt. by governing board	appt. by governing board	appt. by governing board	appt. by governing board	appt. by governing board	appt. by governing board	appt. by governing board	appt. by governing board
8. Statutorily required advisory committee of representatives of constituent local districts	no	no	no	yes	yes	yes	no	yes

*Effective July 1, 1975

Source: E. R. Stephens, "Regional Educational Service Agencies," ERS Monograph Series, No. 29, Educational Research Service, Washington, D.C. (1975)

Table VIII-3

SELECTED FINANCIAL CHARACTERISTICS OF THE EIGHT LEGISLATIVELY MANDATED STATEWIDE NETWORKS OF RESA UNITS, JANUARY 1975

Selected Characteristics	Georgia	Iowa*	Nebraska	Pennsylvania	Texas	Washington	West Virginia	Wisconsin
1. Possess taxing authority	no	no	yes (one mill limit)	no	no	no	no	no
2. Receive direct state appropriation	yes	no	yes	yes	yes	yes	yes	yes
3. Permission to enter into service contracts with constituent local districts	yes	yes	yes	yes	yes	yes	yes	yes
4. Eligible to receive federal grants	yes	yes	yes	yes	yes	yes	yes	yes
5. Authority to hold title to real property	no	yes	yes	yes	yes	no	no	no
6. Statutorily required budget review by constituent local districts	no	no	no	yes	yes	yes	no	yes
***Effective July 1, 1975**								

Source: E. R. Stephens, "Regional Educational Services Agencies," ERS Monograph Series, No. 29, Educational Research Service, Washington D.C. (1975)

Table VIII-4

SELECTED ORGANIZATIONAL CHARACTERISTICS OF RESA UNITS FUNCTIONING UNDER PERMISSIVE LEGISLATION

Selected Characteristics	Colorado	Michigan	New York	Oregon
1. Minimum or maximum enrollment size specified in legislation	minimum of 4,000 students, K-12, inclusive	minimum of 5,000 students, K-12, inclusive	none	none
2. Line association with state education agency	yes	yes	yes	yes
3. Performance of regulatory and administrative functions for state education agency	no	yes	yes	yes
4. All local districts required to be members	no	yes	yes	yes
5. Method of selection of governing board	appointment by local district boards of education	popular election	election by convention of members of local district boards of education	popular election
6. Number of members of governing boards	1 each participating local district—minimum of 5	5 or 7	5	7
7. Method of selection of chief administrator	appointment by governing board	appointment by governing board	appointment by governing board and approval by state commissioner	appointment by governing board
8. Statutorily required advisory committee of representatives of constituent local districts	no	no	yes	no

Source: E. R. Stephens, "Regional Educational Service Agencies," ERS Monograph Series, No. 29, Educational Research Service, Washington, D.C. (1975)

Table VIII-5

SELECTED FINANCIAL CHARACTERISTICS OF RESA UNITS FUNCTIONING UNDER PERMISSIVE LEGISLATION

Selected Characteristics	Colorado	Michigan	New York	Oregon
1. Possess taxing authority	no	yes (categorical)	no	yes
2. Receive direct state appropriation	yes	yes	yes	yes
3. Permission to enter into service contracts with constituent local districts	yes	yes	yes	yes
4. Eligible to receive federal grants	yes	yes	yes	yes
5. Authority to hold title to real property	yes	no	yes	yes
6. Statutorily required budget review by constituent local districts	no	no	yes	no

Source: E. R. Stephens, "Regional Educational Service Agencies," ERS Monograph Series, No. 29 Educational Research Service, Washington, D.C. (1975)

Objectives

Three purposes guide this report. The first is related to testing an analytical framework for describing formal policies that govern or influence KPU. This framework is described in the main volume of this study.

The second purpose is substantive. How are BOCES generally governed? What formal policies are most important? In particular, what are the policies that encourage or discourage BOCES in carrying out KPU? Discussion of BOCES formal policy must consider policies that affect a BOCES from outside the organization itself, and internal BOCES policies that guide the selection and operation of KPU activities. Thus, we have two formal objectives:

(1) To show where BOCES fit into the education governance structure of the state as called out by formal policies.

(2) To describe the operation of KPU activities within a BOCES according to formal policy.

We selected a specific BOCES in each state to satisfy the second objective; these are (1) the Nassau County BOCES in Westbury (Long Island), New York, and (2) the Northern Colorado Educational BOCS in Longmont, Colorado. Our rationale for selecting these particular BOCES for analysis is discussed later in this report.

Finally, this analysis is intended to be useful to policymakers and educational administrators alike. For agencies that fund and otherwise support KPU at state, regional, and local levels, what are the policies to which these groups should be most sensitive? Can such information help in improving communication between local education agencies that have special needs and federal or private education agencies that administer resources for KPU? Do the important policies indicate key agents within the BOCES system who play major roles in governing or influencing KPU?

For administrators and policymakers in states without RESA-type agencies, does this report provide adequate information for assessing the potential structure and governance of a similar organization within their own areas? Does such a description help in comparing the governance structures surrounding different kinds of ISAs?

Background

What Are BOCES?

The BOCES concept was first institutionalized in New York in 1948. During the past 25 years a number of other states have adopted the concepts underlying the New York system, altering them where necessary to fit their own needs and state education systems. The main characteristics of BOCES are the following:

- BOCES are voluntary organizations; local education agencies (LEAs) form or join a BOCES voluntarily.
- BOCES are, in part, locally governed; other governance notwithstanding, they can do nothing that does not solicit the participation of some of their member districts.
- BOCES are, at least in part, locally financed.
- The main purpose of a BOCES is to foster and permit cooperation in education with a given geographical region without consolidating smaller districts into larger agencies.

The term BOCES has three legal meanings: (1) the organization that carries on cooperative activities, (2) the governing board of that organization, and (3) a geographical region served by the cooperative. Here, however, we will use the term BOCES when referring to the organization as a whole, and BOCES board when referring to the governing body. Except for one instance in the New York BOCES discussion, we will not use BOCES in the geographical sense.

Why New York and Colorado?

Colorado and New York were selected for this analysis for a number of reasons.

First, BOCES are pervasive institutions in both states. In New York, all but 22 school districts are members of one or another of the state's 46 BOCES. Of these, only the five largest urban school districts are forbidden by law from forming or joining a BOCES. In Colorado, there are now 17 BOCS, the maximum number permitted by state law, and 170 of the state's 181 districts belong to a BOCS.

Second, while the organization of BOCES is similar in both states, the age and history of BOCES operation are quite different. BOCES were formally authorized in New York in 1948, mainly as a cooperative aid for poorer rural districts. Supervisory districts, however, preceded BOCES, and the BOCES system was an attempt to reorganize and improve this earlier form of regionalism. BOCS in Colorado were formed in 1965 under statewide legislation. During the prior two decades, Colorado's education system had undergone a consolidation that reduced the number of districts from more than 2000 in 1935 to 181 in 1964 (Brubacher, 1975); BOCS was an effort to provide educational services to districts at a reasonable cost, while preserving the strong local autonomy of education that is prescribed by Colorado's state constitution.

Third, there are important similarities between the BOCES operation in both states. Membership is voluntary in both New York and Colorado; neither BOCES system has the power to tax; and local district control is an important policy in both states.

Finally, the overall organization of the state education systems of New York and Colorado is different. New York's system is highly centralized; Colorado's is decentralized. In New York, several actors in the

SEA have powerful formal roles in governing education. In Colorado, the key agencies responsible for governance are the local boards of education (LBEs).

In each state, as noted above, we have looked only at internal KPU policy for one BOCES. The reason for such selectivity was a requirement to test the descriptive powers of the analytical framework, rather than an intent to compare and contrast the KPU policies of all BOCES in both states. In general, we looked at the BOCES with the strongest KPU involvement in each state as identified by knowledgeable correspondents. (In Colorado, however, we deviated slightly from this approach; at the suggestion of a Colorado SEA officer, we looked briefly at the organization and major policies of another BOCS, one not heavily involved in KPU. This was the Weld County BOCS in LaSalle. We wanted to know how policies of that BOCS might have encouraged activities other than KPU.)

Summary of Conclusions

Despite a great many apparent similarities between the New York and the Colorado systems, there are important differences in how they are governed. Formal policies, especially the respective state education codes, are explicit about governance.*

Issues in Governance

Local control of BOCES activity is, in policy and in fact, the dominant concern in both states; in Colorado, it is the only concern. In New York, however, the BOCES are the middle level of a three-tier education system; as such, they are an important formal and actual link between the local school districts and the State Education Department. To be initiated, proposed BOCES programs first must be responsive to the needs of more than one member LEA, second must be reviewed by the Bureau of School District Organization of the State Education Department, and third must elicit participation by more than one BOCES LEA. The executive officer of a New York BOCES is also an employee of the state system; he has important non-BOCES responsibilities and is a key actor in connecting the state education system with both the BOCES and the local districts that he assists or manages.

---

*The formal policies--laws, regulations, SOPs, and so forth--that specify governance systems are cited in the respective state descriptions.

In Colorado, on the other hand, the BOCS system has only two levels--the intermediate agency itself and its member LEAs. Governance rests with the member LBEs, which act, in part, through a BOCS governing board; BOCS programs can be mounted if at least one member LEA chooses to participate. The program selection process is entirely limited to the two levels; through a sequence of internal reviews the BOCS establishment selects programs, and member LEAs choose whether or not to participate. The BOCS executive officer is an appointee of the governing board and manages the BOCS for that body. The Colorado Department of Education does interact with the BOCS system, but only by disbursing an annual state grant to each BOCS and by providing "consultative assistance" to the BOCS.

Fiscal Policy

Both BOCES systems are partially funded by their member districts, but the funding mechanisms work differently. In New York, BOCES expenses are divided into administrative costs and program costs. Administrative costs are shared by all the member LEAs according to one of two formulas. BOCES programs for member LEAs are paid pro rata by those LEAs that participate; for programs that have been previously approved by the State Education Department, the state reimburses the participating LEAs for approximately 60% of their cost.

In Colorado, as in New York, the LEAs that participate in BOCS programs pay the costs. However, the state does not reimburse the local districts in any way; rather, the state pays each BOCS an annual grant of $10,000 for administrative expenses. The BOCS governing board may assess member LEAs dues according to one of several available formulas; these dues go mostly for covering administrative expenses.

Both BOCES systems may contract with outside agencies; grants from agencies like NIE, USOE, and private foundations are particularly important sources of income for KPU activity. In general, programs are begun with a mix of funding sources and continued, if successful, with member LEA support. Both BOCES may sell services and goods to non-BOCES agencies; the authorizing policy is similar in both states, but Colorado legislation permits interaction of this sort with other SEAs, while New York policy is unclear.

KPU Policy

In neither state is KPU policy highlighted for the BOCES. To a great extent, both BOCES have the same legal status as LEAs (although without the power to tax or commit local resources). Scattered through the respective state education codes are KPU activities that the BOCES are permitted to undertake as BOCES or as LEAs--i.e., providing media services, in-service education, and so forth. For both Colorado and New York BOCES, any activities that are selected by member LEAs (and in New York, approved by the Bureau of School District Organization) and that are not contrary to other state policies are permitted.

Both BOCES play an important role in assisting their member LEAs with needs assessment, so that many KPU programs should be considered to be a result of both local district interest and the joint processes of needs identification and program design.

Summary of Recommendations

We make two kinds of recommendations: those for further studies, and those for better coordinating KPU between the BOCES systems and the federal education establishment. Here we only outline our recommendations; the rationale for and a discussion of each recommendation are included in the final section of this paper.

Further Studies

(1) Formal policy mechanisms for KPU in ISAs is a study that looks mainly at policies governing how the BOCES select and conduct programs and how they are funded. Other studies, notably Stephens (1975), review state policy at a highly aggregated level. A study that explicates selection and fiscal policy of other ISAs should be considered as part of a program to improve interaction in KPU between federal and local agencies.

(2) This study, in looking only at formal governance, does not make clear why some ISAs emphasize KPU while others do not, other than to note that local concerns govern the BOCES. A review of program history across all the individual BOCES--in Colorado, in New York, and in other states with similarly organized ISAs--should be considered as one means of understanding local priorities.

(3) More detailed studies of ISA governance may or may not be useful. Member LEA policy that guides BOCES operation may provide important clues for encouraging KPU at the local or intermediate level, but we believe the costs of carrying out such detailed research might well be more than the benefits of having such information.

(4) This research was limited to formal policy. More informal criteria for decision making (e.g., the political context of education at the local level, the abilities of key actors, local economic conditions, and so forth) appear at least as important as formal rules for governance. Thus, a study that identifies the relationships between decision making criteria--both formal and informal--and the amount of participation in KPU should produce more useful results.

KPU Monitoring and Policy

(1) Although for different reasons, a single agency in each state appears to be a nexus for information about BOCES activities. These are (1) Regional Field Coordinators Unit in Colorado and (2) the Bureau of School District Organization in New York. NIE should consider developing a close working relationship with both agencies to (1) collect information about the history of KPU activity in that state's ISA, (2) gain knowledge about local interests and local needs for KPU as expressed through the BOCES system, and (3) provide comprehensive information about ongoing and anticipated NIE ventures to encourage KPU, especially dissemination, at the local and intermediate levels.

(2) The BOCES systems in both states should consider encouraging informal networks--i.e., "invisible colleges"--through which separate ISAs and local districts might share information about endogenous programs and needs, and exogenous resources. The two agencies discussed above are ideally located in the organization structure for managing such a network.

(3) While this study does not look at all the BOCES or the details of RESA/ISA governance in other states, our findings do indicate that both BOCES systems work quite well in meeting their main purpose, i.e., regional cooperation. As at least partial successes, they should be considered as potential models for other states contemplating the development of ISAs. A detailed description of the governance structure, such as presented here, should provide more than adequate information about organization and management for alternative models.

(4) Both formal policy and respondents for this study indicated that the BOCES concept has played a major role in creating a favorable climate for cooperative needs assessment and, to a lesser extent, program evaluation. The formal policy mechanisms that prescribe such activities may provide good models for other agencies wishing to infuse planning and evaluation into their own organization structures.

(5) Finally, the BOCES we looked at closely appeared to have successfully extended programs through a variety of funding mechanisms after initial federal funds had ceased.

Since member LEA approval is, to varying degrees, necessary for such continuation in both states, we believe the BOCES may provide good models of organizations that initiate innovation and operate sufficiently well to encourage their members to continue funding exemplary programs.

II COLORADO: BOARDS OF COOPERATIVE SERVICES (BOCS)

Overview of Policy Relationships for Colorado BOCS

The BOCS system in Colorado was established by the Board of Cooperative Services Act of 1965; as amended in 1973, the Act authorized 17 BOCS eligible for state funding. There are now that many in existence.* Two major policy sets govern the operation of a BOCS: (1) the 1965 Act, as amended in 1973, and (2) policies of the BOCS governing board. To the extent that they choose to interact with other education agencies within and without Colorado, BOCS must be responsive to other guidelines. Two other Colorado education agencies play a role in BOCS operation, although almost entirely in an advisory capacity. They are the Office of Regional Field Service Coordinators of the Colorado Department of Education and a quasi-official organization called the Colorado BOCS Association.

Figure VIII-1 shows the major agencies that govern or influence BOCS; Table VIII-6 briefly outlines the main policy relationships among them.

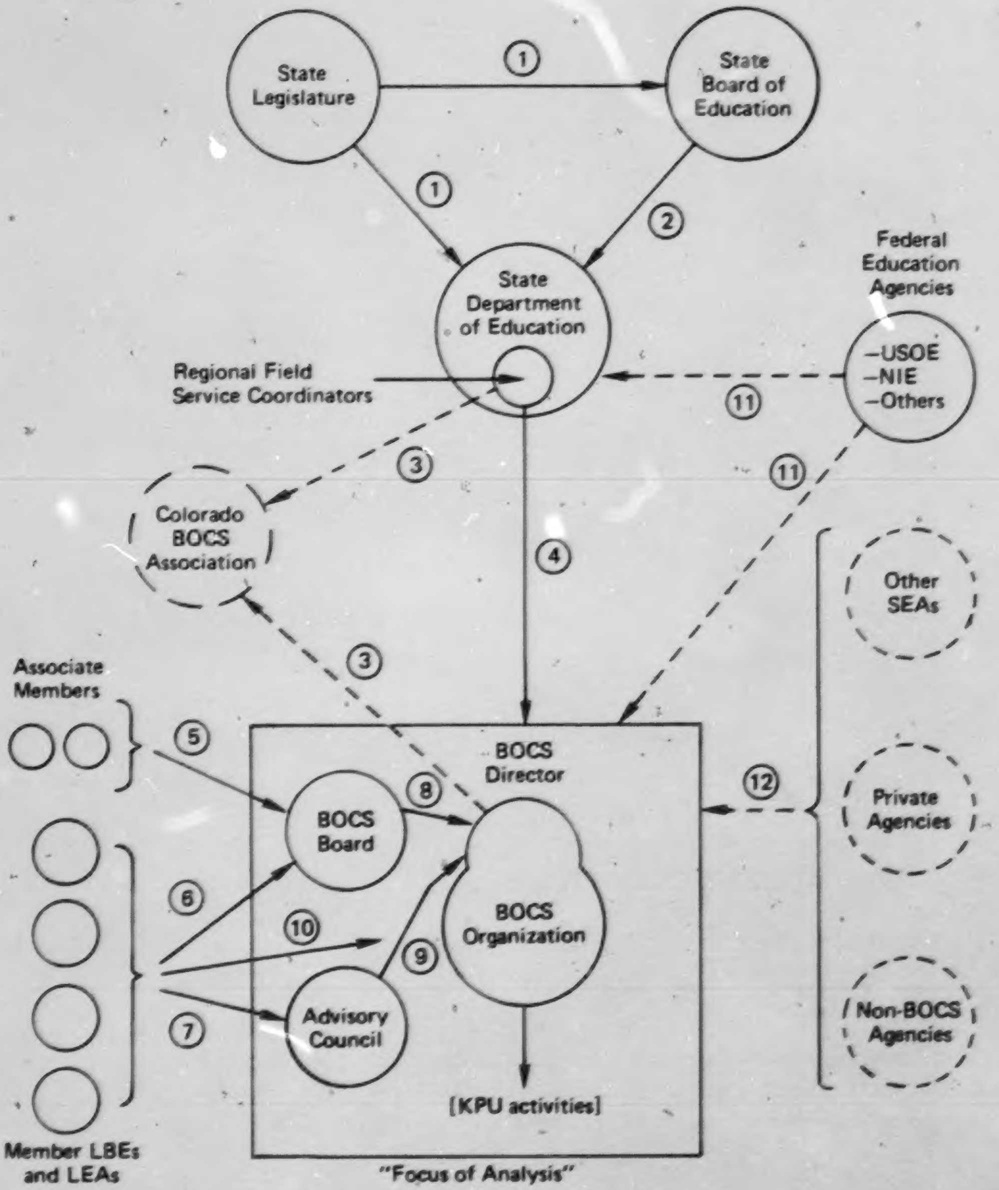
Major Policies from Outside the BOCS

In Colorado, local control of public education (K-12) is mandated by the Colorado State Constitution:

> The general assembly shall, by law, provide for organization of school districts of convenient size, in each of which shall be established a board of education, to consist of three or more directors to be elected by the qualified electors of the

---

*The 1965 Act makes no restriction on the actual number of cooperatives; consequently, BOCS may be established that are not eligible for state funding. However, we will not discuss these kinds of BOCS; in general, their governance would be much the same as the funded BOCS.


State Legislature
①
State Board of Education
①
②
State Department of Education
Federal Education Agencies
–USOE
–NIE
–Others
Regional Field Service Coordinators
⑪
③
⑪
Colorado BOCS Association
④
Other SEAs
③
Associate Members
⑤
BOCS Director
⑫
BOCS Board
⑧
Private Agencies
⑥
⑩
BOCS Organization
⑨
Advisory Council
⑦
Non-BOCS Agencies
[KPU activities]
Member LBEs and LEAs
"Focus of Analysis"

Note: Circled numbers denote policy relationships; these are outlined in Table VIII-6.

FIGURE VIII-1 COLORADO BOCS AND MAJOR POLICY RELATIONSHIPS

Table VIII-6

KEY AGENCIES AND POLICY RELATIONSHIPS IN THE BOCS SYSTEM[a]

Number[b]	Policy Setting Agent	Policy Implementing Agent	Relationship
1	State Legislature	State Board of Education (SBE) State Department of Education (SDE) [The SDE is effectively the staff of the SBE.]	The Colorado State Legislature makes law for the SBE--the most important state-level education agency--and the SDE. The most important law affecting BOCS is the 1965 BOCS Act, as amended. Both agencies play a role in setting up and administering certain statewide educational programs, none of which is KPU.
2	SBE	SDE	Legally, the SBE governs the SDE. The SBE appoints Colorado's Commissioner of Education, who administers the SDE.
3	BOCS directors Regional field service coordinators	Colorado BOCS Association	The Association is a group whose membership is open to the directors of the 17 BOCS, BOCS staff, school board members, and superintendents. For the most part, the Association is a place where members can exchange information and work out mutual problems. The regional field service coordinators of the SDE participate actively in Association activities. The Association has no formal role in Colorado's education system, but is probably a major source of informal information exchange among the BOCS.
4	Office of Field Services (SDE)	BOCS (not a governance link per se)	The Office of Field Services maintains close relationships with the 17 BOCS through five regional field service coordinators. These people provide mostly consultative assistance to the BOCS; they, in no way, govern BOCS. The only formal role for the SDE--through the Office of Field Services--is to certify each year to the SBE the 17 eligible for the $10,000 grant.
5	Associate BOCS members	BOCS board	Certain education agencies, mostly community colleges, state colleges, and universities, may belong to a BOCS as associate members. They participate in BOCS activities when they so elect, and are nonvoting members of the governing board.
6	Member LBEs	BOCS governing board	The BOCS governing board is made up of one member from each of the member districts. These members are elected by their respective LBEs. This membership provides the main (and only legal) link between member districts and the BOCS itself. It is also, in fact, the main mechanism that ensures local control over BOCS.
7	Member LEAs	BOCS advisory council	Professional education administrators from the member LEAs provide advice for both the BOCS governing board and the BOCS director through an advisory council. The makeup and formal activities of this group are determined by the BOCS bylaws.
8	BOCS governing board	BOCS director BOCS organization	The BOCS governing board has legal authority over the operation of a BOCS (see number 6 above). Besides acting as the formal BOCS agency--the board is the BOCS--the board appoints the BOCS director and either approves or disapproves all proposed BOCS activities.
9	BOCS advisory council	BOCS	The advisory council advises the governing board and the BOCS director (see number 7 above).
10	Members LBEs	BOCS	Member districts choose whether or not to participate in any given BOCS program.
11	Federal education agencies	SDE BOCS LEAs	Various federal education agencies (mainly NIE and USOE) provide guidelines to the SDE and the LEAs regarding participation in federally funded programs. From the federal perspective, BOCS is an LEA. Where the SDE or LEAs choose to participate, they must comply with those formal policies promulgated by the federal agencies.
12	Other SEAs (outside Colorado) Private agencies Non-BOCS LEAs.	BOCS	BOCS can interact with other educational agencies, both within and without the State of Colorado. When they do this, the formal relationship is contractual, and those formal policies (of other states and other Colorado agencies) that govern contracts are important.

[a] Policies that prescribe these relationships are cited in text.

[b] Numbers refer to circled numbers in Figure VIII-1.

> district. Said directors shall have control of instruction in the public schools of their respective districts (§15, Article IX).
>
> Neither the general assembly nor the state board of education shall have the power to prescribe textbooks to be used in the public schools (§16, Article IX).

The 17 Colorado BOCS are organized and operated within the context of formally mandated local control.

The most important policies, outside the BOCS themselves, that regulate or influence the BOCS are few. They are:

- The Colorado Board of Cooperative Services Act of 1965, as amended (Article 5, State Education Code).
- The Colorado "Contracting Law" (§23 of 123-30 C.R.S.* 1965, as amended).
- Certain other sections of the State Education Code that prescribe the purposes, powers, rights, obligations, and responsibilities, financial or otherwise, of school district boards.

Other policies that may importantly influence but that do not regulate BOCS include:

- Federal and state policies that govern the availability of money for educational programs in general, and KPU in particular. Of importance to BOCS KPU activities are ESEA Title III funds and guidelines. Emerging NIE policy that governs the distribution of KPU and other funds to states and LEAs should be considered similarly important.
- Policy guidelines for Colorado's Regional Field Coordinators Unit.
- Policies of other organizations that may participate with a BOCS in various KPU projects. Included here are private educational institutions in Colorado, Colorado's state

---

[*] Colorado Revised Statutes.

university and colleges, community colleges, various profit and nonprofit organizations, and education agencies outside the State of Colorado that contract with a BOCS to participate in a particular program

Since the first concern for a BOCS is local needs, the influence of this second group of policies is indirect. The Regional Field Coordinators Unit, for example, provides continuing assistance to the BOCS, but does not control their activities. The importance of the other policies in this group depends mostly on the internal policies of each BOCS, especially those that govern the selection of that BOCS' activities.

- In addition, the informal policies of the Colorado BOCS Association--more an organization for collective problem solving and information sharing than a policymaking body--can indirectly influence BOCS' activity.

The most directly relevant formal policies governing BOCS are those promulgated by each BOCS' governing board; these will be discussed in the section on the Northern Colorado Educational BOCS.

The 1965 BOCS Act--How the BOCS Are Organized

The BOCS Act of 1965, as amended in 1973 (Article 5, State Education Code) is the principal state law governing the formation and basic operation of a BOCS. The overall purpose of the Act is to enable "... two or more school districts to cooperate in furnishing services authorized by law if cooperation appears desirable" (§22-5-102).

BOCS formed under the provisions of this Act must have met the following criteria to be eligible for state funding:

- It (a BOCS) shall serve school districts with a combined total enrollment of not less than four thousand students.
- It shall serve school districts in two or more counties.

- It shall serve school districts with a combined total valuation for assessment of not less than sixty million dollars or school districts with a combined total area or not less than four thousand square miles. [(§22-5-114-2(a-c)]

BOCS were formed by application of two or more school districts desiring such an organization and satisfying the above criteria to the SBE. The SBE can either approve or disapprove such an application (§22-5-104).

Organizations other than school districts may join a BOCS as associate members; these include community and technical colleges, junior college districts, and state-supported institutions of higher learning. Approval of such memberships, and of memberships of any additional school districts, is at the discretion of the BOCS governing board (§22-5-104-3).

The governing board is designated in the 1965 Act as the formal controlling and policy setting agency for each BOCS. A board has no fewer than five members; however, each participating school district must be represented on the board. The individual members of the board are appointed by their respective LBEs; each is an LBE board member whose term of membership on the BOCS board coincides with his term as an LBE director. The BOCS board must meet at least quarterly. Alternate members--from the participating LBE--may take the place of regular board members who are absent. A quorum consists of a simple majority of board members (§22-5-104-2,4).

Responsibilities of the BOCS Board

The main responsibility of the BOCS board is to adopt a set of bylaws that establish the BOCS as a legal entity meeting the state requirements, and to govern the BOCS. In general, the powers of a BOCS board are the same as those of an LBE; there are several exceptions, however, the most important being that the BOCS board does not have the power to tax or commit local resources. A number of KPU-related activities discussed in the State Education Code fall within the domain of BOCS as well as that of the LEAs; in fact, it is convenient to think of a BOCS as a limited LEA. These responsibilities include:

(1) To adopt written policies, rules, and regulations, not inconsistent with law, which may relate to ... in-service training, professional growth ... of employees (§22-32-110-k).

(2) To provide ... out of federal funds made available specifically for this purpose, library resources which, for the purpose of this title, mean books, periodicals, documents, magnetic tapes, films, phonograph records, and other related library materials and printed and published instructional materials for the use and benefit of all children in the district and the use of teachers to benefit all children in the district, both in the public and nonpublic schools ... (§22-32-110-dd).

There is no specific inclusion, exclusion, or discussion of R&D (i.e., KPU) per se in this section of the Education Code.

Finally, the board appoints an executive director who administers the BOCS for the board.

Responsibilities of the SBE and SDE

The major responsibilities of the SBE--and consequently the SDE--include several activities that affect the BOCS, namely:

(1) Governing all education programs in the SDE for K-12 students [§123-1-7(d) C.R.S. 1965, as amended]. This refers to education programs operated by the SDE, not to those operated by local districts.

(2) Providing consultative services to the public schools and boards of education of school districts [§123-1-7(g) C.R.S. 1965, as amended]; BOCS, as LEAs, are also eligible for consultative services. The Regional Field Coordinators Unit of the SDE's Office of Field Services provides these services for BOCS.

(3) Certifying the eligibility of each BOCS, up to 17, for the state grant of $10,000 each year, and paying that amount to eligible BOCS (§22-5-115 Ed. Code); the Regional Field Coordinators Unit also performs this task.

(4) Coordinating federal programs in education not directed toward another agency within the state [§123-1-7(j) C.R.S. 1965, as amended]--for example, ESEA Title III and NDEA Title III.

(5) Cooperating with other agencies within and without the state for the improvement of education [§123-1-7(m) C.R.S. 1965, as amended].

Thus, the key formal interactions between the SBE/SDE complex and a BOCS are characterized by "consultation" and "cooperation." The actual governance of BOCS is left to the member LBEs, the BOCS board representing the members, and the board's appointed administrator.

Finally, the SDE is responsible for accepting, using, disbursing, and administering all federal aid allotted to the State Board of Education for "... local public schools or public educational functions ..." [§123-1-7(12) C.R.S. 1965, as amended]. Various offices within the SDE administer whatever federal funds may be available to a BOCS through programs in which the BOCS elects to participate. This is only true, of course, for federal funds that funnel through the state; some federal funds are available directly to an LEA without the SDE acting as an intermediary (e.g., NIE's local problem solving program).

Other Important Policy

The Contracting Law

Colorado's "Contracting Law" further ensures local autonomy and, by extension of certain of the powers of local boards, permits BOCS to interact with many other kinds of agencies (§23 of 123-30 C.R.S. 1965, as amended). Brubacher (1975, p. 2) notes that the law permits local districts to make contracts with any state college or university; any tribal corporation of any Indian tribe or nation; any federal agency or officer; any county, city, or city and county; any natural person; and any corporate body or association.

Regional Field Coordinators Unit

The Regional Field Coordinators Unit of the SDE provides, as noted above, assistance to the BOCS. Formal policy for that unit is prepared on an annual basis. Under the requirements of §22-2-106(1)(a) of the Education Code and the 1965 BOCS Act, the Unit's present policy toward assistance for BOCS includes:

- Provide administrative consultative services to ... BOCS.
- Conduct on-site visits to each ... BOCS.
- Attend and participate in superintendents' advisory council meetings and board meetings of BOCS.
- Coordinate Colorado BOCS Association activities.
- Disseminate information on change, and share methods, techniques, and policies of exemplary programs with other LEAs.
- Disseminate information on state and federal programs and activities.
- Assist ... BOCS with school district organization, dissolution, and annexation; detachments; master plans; resolutions; bylaws; constitutions.
- Certify to the SBE the names of not more than 17 BOCS for the approval of payment of state funds as provided for by the BOCS Act of 1965, as amended.
- Monitor state payments to approved BOCS.

Thus, the Unit is the key state agency that interacts with BOCS, providing in particular, key policy and information dissemination links among the federal education establishment, other state agencies, and the BOCS system.

The Unit is made up of five individuals, each responsible for coordinating assistance for school districts and BOCS within a region of the state. The coordinators attend BOCS advisory council and BOCS board meetings regularly; they also coordinate Colorado BOCS Association activities. All respondents in this study praised the work of this unit and its effectiveness.

Each coordinator provides backup for the others; when one is not available to give assistance to his assigned BOCS, another is available to meet the needs. In addition, each coordinator has specific areas of responsibility, e.g., school district organization and school board policy.

The Operation of a BOCS

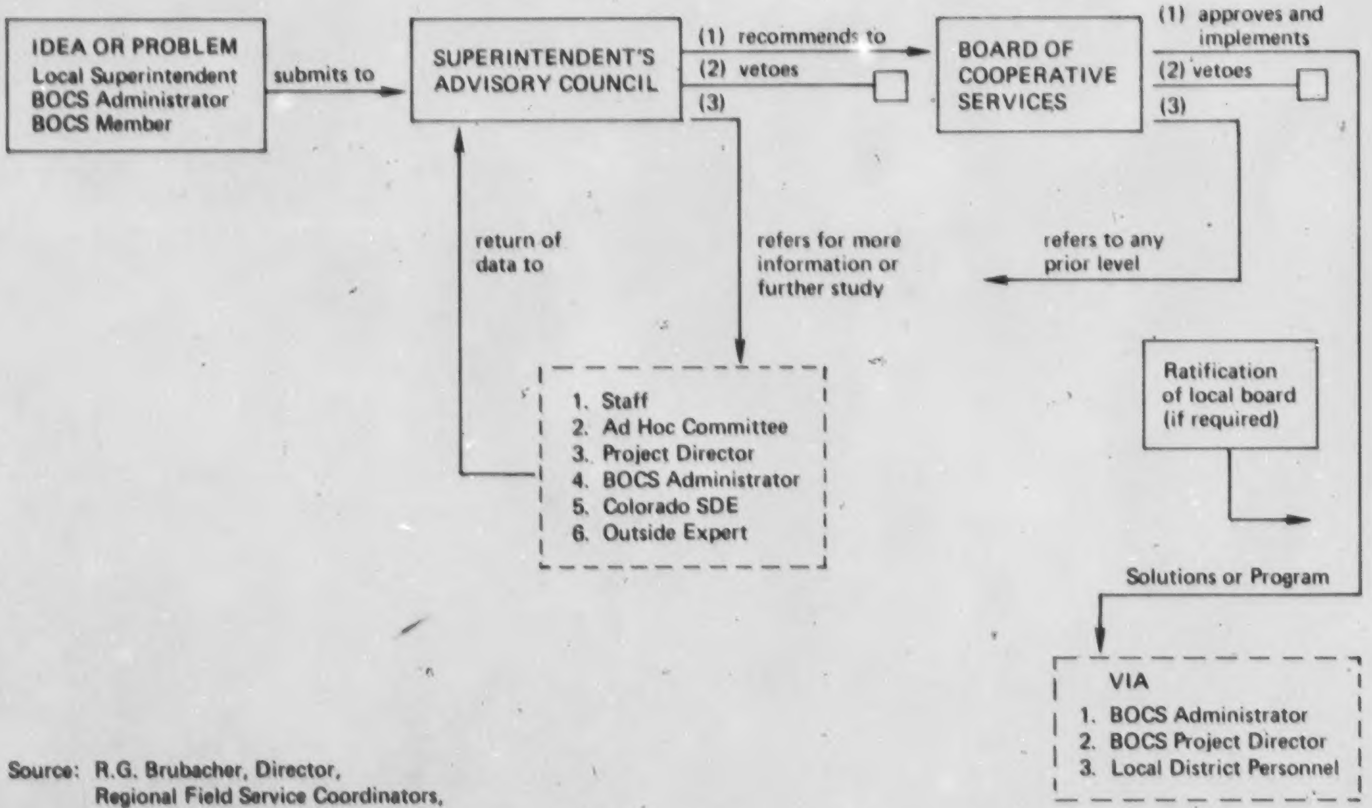
Four key actors govern a BOCS: the member LBEs, the BOCS board, the BOCS executive director, and a BOCS advisory committee that is made up of educational administrators from the component LEAs and that advises both the board and the executive director. The BOCS board itself is the representative of the member LBEs and provides one channel through which their needs and policies are felt.

The following is a description of the BOCS governance process published by the SDE:

> ... With the absence of taxing authority, the BOCS exists only at the discretion of its member school districts. The lack of power to commit local districts causes all decisions of the cooperative board involving the utilization of local school district facilities, equipment, staff, or finances to be submitted to each LBE involved for ratification before the decision is final.
>
> ... the organizational structure of each BOCS includes an advisory council. The council is made up of the superintendents of participating school districts. The role of the council is to identify educational needs and recommend to the board of directors, ways and means of meeting the needs.

> Once a need has been identified, the professional staff of the BOCS, working with people at the local level, develops alternative plans for meeting the need. The plans include objectives to be met, resources required, a budget, an implementation schedule, and an evaluation component.
>
> In most instances alternative plans are developed, thus giving the advisory council a broader view of the possibilities. When the plans are completed, the executive director of the BOCS presents them to the advisory council for consideration at one of the regular monthly meetings. The advisory council may (1) veto the entire project, (2) refer the project back to the BOCS' staff for revision or additional planning, or (3) recommend it to the board of directors for approval. Assuming the advisory council approves a plan, the executive director presents the plan to the board along with the advisory council's recommendation at the next meeting.
>
> The directors may reject the proposal, refer it back any prior level for revision or further study, or approve the plan and refer it to local boards for ratification.
>
> At this point, LBEs exercise their powers of autonomy. A local board may elect not to ratify the decision of the cooperative board and thus not participate in the program under consideration, or they may elect to ratify and participate. After the local boards make their respective decisions, the program is adjusted to the number of districts that have decided to participate. The program is then implemented with the BOCS performing those functions outlined in the plan. (Brubacher, 1975)

Figure VIII-2 is a flowchart of these decision activities. While formal policy is explicit about who governs--the member LBEs through the BOCS governing board--the BOCS are structured and operated so that any one of the four key agents may initiate discussion about a perceived need and a proposed solution. The BOCS advisory council acts as an important screening mechanism for proposals, assisting the executive director in assessing LEA requirements and reviewing proposals for meeting those needs. Still, final approval rests with the member LBEs, which must either agree or refuse to participate in and fund a BOCS-approved program.


IDEA OR PROBLEM
Local Superintendent
BOCS Administrator
BOCS Member
submits to
SUPERINTENDENT'S ADVISORY COUNCIL
(1) recommends to
(2) vetoes
(3)
return of data to
refers for more information or further study
1. Staff
2. Ad Hoc Committee
3. Project Director
4. BOCS Administrator
5. Colorado SDE
6. Outside Expert
BOARD OF COOPERATIVE SERVICES
(1) approves and implements
(2) vetoes
(3)
refers to any prior level
Ratification of local board (if required)
Solutions or Program
VIA
1. BOCS Administrator
2. BOCS Project Director
3. Local District Personnel

Source: R.G. Brubacher, Director,
Regional Field Service Coordinators,
3/24/71; revised: 1/30/74

FIGURE VIII-2 BOARDS OF COOPERATIVE SERVICES ACTION FLOW PLAN

Funding Mechanisms

As noted above, each BOCS eligible under the provisions of the 1965 Act receives a basic grant of $10,000 each year from the state (§22-5-115 Ed. Code). Any other money for BOCS operation must come from the member districts or outside sources. Brubacher (1975) explains:

> ... the responsibility for financing the BOCS' operation rests primarily with local school districts.
>
> ... expenditures by a cooperative board will be in two areas, one for special programs and the other for administrative expenses. The implementation for programs and services is contingent upon their development and ratification by LBES and subsequent allocation of funds. The secondary source of funding comes from federal and state agency grants and occasionally private foundation grants. Since the primary source of funds is the participating districts, some equitable formula for proration of costs must be determined. This formula must be worked out by the cooperative board and approved by all local member boards of education. There are several bases which are being used: assessed valuation, pupil membership, pupil attendance, and flat fees. A large portion of the administrative expense is overhead cost, which, to some degree taxes the local district budgets. In 1973, the Colorado General Assembly recognized the problem and provided for an annual appropriation of ten thousand dollars for each of seventeen BOCS.

Because each BOCS must be responsive to the needs of its member districts, special regional concerns dominate what a given BOCS does. Consequently, BOCS funding patterns are primarily determined by two factors--the needs of the members of a specific BOCS and the availability of "soft" money from federal, state, and private sources. Since BOCS may contract with outside agencies, several BOCS sell special services to other BOCS, postsecondary institutions within Colorado, and other SEAs outside Colorado. Some BOCS, on the other hand, may not feel the need to sell products outside the BOCS and are more likely to be supported by local funds.

KPU Policy in General

Because there are no state mandates for BOCS (other than those prescribing organizational structure), formal policy that states an inclination toward KPU is difficult to find. For the most part, the only formal policies that show a KPU orientation are the decisions of the BOCS board and the member LEAs in selecting programs for participation. Indirect indicators of such policy include program histories (if maintained) and the fiscal records of each BOCS.

An apparent lack of BOCS' KPU activity does not necessarily mean that no KPU is taking place within the BOCS. Where local member districts prefer to carry on KPU without BOCS support, the BOCS may be engaged in entirely different activities. However, although there are no data available on this, SDE sources informally estimate that some 40% of all KPU in Colorado is carried out in BOCS.

The ability of a BOCS to identify sources of funds that support KPU programs of potential interest to its member LEAs is probably a key factor in the success of BOCS. Beyond the very real constraint of the availability of outside funds, the single most important policy constraint on the ability of a BOCS to use outside funds is the willingness of one or more member districts to participate in the BOCS program.

KPU Policy in One BOCS--Northern Colorado Educational BOCS (NCEBOCS)

No general statements can be made about internal policies that encourage or discourage KPU in a specific BOCS. The variation of interest and needs is simply too great, and money factors less formal than the kinds of policies we study here affect the kinds of programs that a BOCS carries on. However, general decision-making policy (Figure VIII-2 above) and BOCS bylaws and administrative manuals can give some indication of the environment in which programs are initiated and carried out.

The Northern Colorado Educational BOCS (NCEBOCS) in Longmont, Colorado, appears prominently in the literature and was, as well, suggested by respondents as a Colorado BOCS deeply engaged in KPU activities. Formal policy, however, gives little indication why this is so. The NCEBOCS Bylaws set up the BOCS as a legal agency, thereby meeting the requirements of the 1965 Act; the Bylaws do emphasize LBE control by noting that the BOCS "... cannot obligate the funds of any member school district without the approval of the individual boards of education" (§VII, NCEBOCS Bylaws). Administrative policies of NCEBOCS discuss only administrative matters, saying nothing about the substantive orientation of the BOCS.

Three associate members of NCEBOCS participate in a variety of KPU projects currently under way: the University of Northern Colorado at Greeley, Colorado State University at Fort Collins, and the University of Colorado at Boulder.

NCEBOCS carries on a number of KPU projects that are sources of income from outside the BOCS. For example, NCEBOCS has an information retrieval service that is used by other BOCS and SEAs. Also of interest are KPU product packages, developed by BOCS professional staff, that are sold to interested educators nationwide, and the Colorado State Facilitator Project (with Title III funding) that serves all the BOCS.

One interesting aspect of NCEBOCS' KPU activity is that the BOCS has been able to carry on projects long after initial funding sources have dried up. In part this is due to the member districts' continuing satisfaction with the projects; however, the ability of NCEBOCS to generate revenue through sales should be considered important. Because of the BOCS governance structure, the sale of products must be sanctioned by the member LBEs.

Most new projects in NCEBOCS appear to be funded by outside sources, rather than by local funds; successful programs have the continued support of member LEAs. However, one respondent pointed out that information about forthcoming state and federal programs was critical to the continued growth of a BOCS so involved in innovation. Again, the SDE's Regional Field Coordinators Unit was described as helpful here, but the respondent noted that close informal contact with federal education agencies was necessary to meet federal proposal deadlines, and so forth.

This, then, is a BOCS in which professional staff play an active role both in assessing the needs of member districts and in pursuing available program funds outside the BOCS itself. There is no indication that the BOCS supersedes the interests of its governing board or member LBEs; to the contrary, there appears to be a long and comfortable relationship between these agents, with a strong orientation toward education innovation and dissemination activities. There are, however, no indications of this direction in formal policies beyond the actual selection of projects by the BOCS board.

Another BOCS in Colorado--Weld County

To assess the possibility of a different formal policy climate leading to a different BOCS orientation, we looked at policies that governed the Weld County Board of Cooperative Educational Services (BOCES) in LaSalle, Colorado. The Weld BOCES, while geographically adjacent to NCEBOCS, carries on programs that heavily reflect an orientation toward special education for the handicapped, bilingual projects, and media services for member districts. Only the latter can be considered KPU in the sense that it has been used in this project.

Like the NCEBOCS--and apparently all Colorado's BOCS--the issue of local control is strongly emphasized. In this BOCS, however, administrative policies clearly cite the special education orientation. A respondent indicated that these policies evolved from the member LEAs' preception of the requirements of a constituency that is different, both politically and demographically, from that of NCEBOCS. The purpose of the Weld BOCES is illuminating:

> The Weld BOCES was founded first to provide special services for children in smaller districts which found it economically impossible to finance complete special education programs. While providing services for children with special needs remains an important part of the BOCES operation, the cooperative has expanded its role and is now involved in extending services to all 9,200 students in the seven districts (Weld BOCES information handout).

Like the NCEBOCS, little formal policy prescribes the Weld BOCES' service orientation.

In terms of organization and governance, the Weld BOCES is similar to the NCEBOCS; in terms of programs, it is different. A brief look at the activities of other Colorado BOCS suggests that this is generally the case (Colorado BOCS Study, 1975).

III NEW YORK: BOARDS OF COOPERATIVE EDUCATIONAL SERVICES (BOCES)

Overview of Policy Relationships for New York BOCES

The BOCES system in New York was created in 1948 in the Intermediate District Laws. The BOCES were intended to be temporary agencies pending the creation of intermediate school districts (Colella and Foster, 1974). In the years after 1948, however, the BOCES grew stronger, and support for the creation of intermediate districts dwindled. By 1967, the BOCES were provided with the legal capability to acquire facilities to house their programs (§1951, Education Code), and by 1972 the article title "Intermediate School Districts" was dropped entirely and replaced by "Boards of Cooperative Educational Services" in law as well as in operation (Article 40, Ed. Code). There are now 46 BOCES; in 1974, all but 22 of New York's 735 school districts belonged to a BOCES, and the enrollment of member districts was 2,044,000. The New York BOCES system, the earliest form in the current wave of regionalism in education, is frequently cited in the literature as the conceptual precursor to other regional or intermediate service agencies.

The BOCES are service agencies that reflect the educational concerns of both the state education agency and the BOCES' member local districts. Operation and activity in the governance system take place at three levels--the State Education Department (SED), the local districts, and the BOCES; educational policy, however, is formally determined at the former two levels.

The major policies that govern or influence BOCES' organization and activity are: (1) Article 40 of New York's Education Code, (2) policies of the BOCES governing board, and (3) policies of the Bureau of School District Organization of the New York State Education Department. Figure VIII-3 shows the key agents in the BOCES governance system; Table VIII-7 outlines the major policy relationships among them.

Article 40 of the Education Code--How the BOCES Are Organized

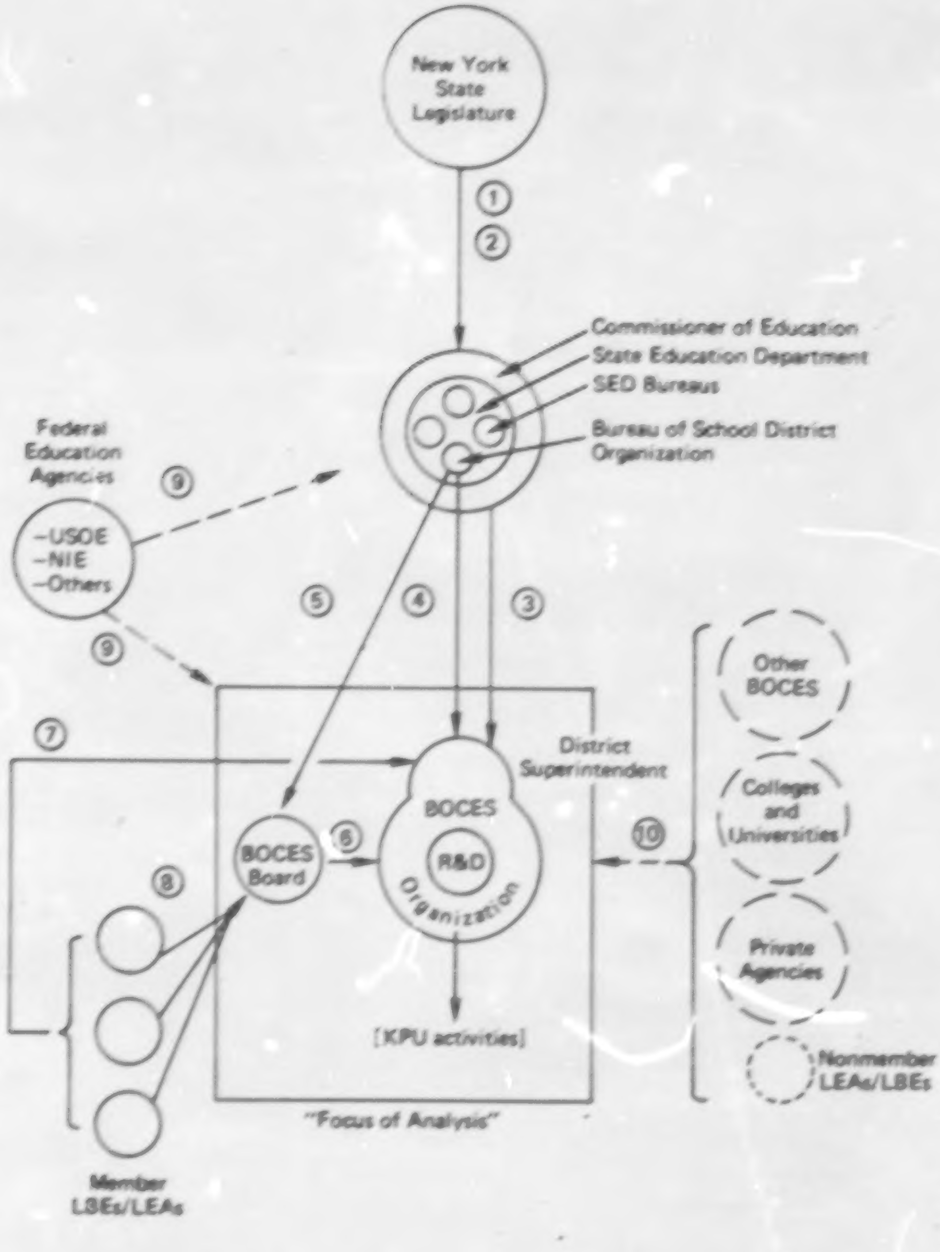
The 1948 Intermediate District Laws drew out the concept behind the formation of BOCES (and the never-developed intermediate districts):

> In order to improve educational opportunities in rural areas by overcoming the handicaps in rural education that arise from sparsity of population and from other causes, and to provide an organization that will enable local school districts to combine their resources for the effective and economic provision of educational services, it is hereby declared to be the policy of the state that present school districts, except city school districts, cooperate in order that additional services not now feasible or available may be provided for the children of the community (L. 1948, Ch. 661, §1).

A BOCES is established by order of the Commissioner of Education [§1950 (1) Ed. Code] in approval of a request by LBEs not already a part of a BOCES,

> ... for the purpose of carrying out a program of shared educational services in the schools of the supervisory district and for providing instruction in such special subjects as the commissioner may approve [§1950 (1) Ed. Code].

Members of the component LBEs elect members of the BOCES governing board; no more than five members of each component LBE may vote in elections of BOCES board members. The maximum size of a BOCES board is 15; the minimum is five. There are no eligibility qualifications for BOCES board members except that they must reside within the geographical region served by the BOCES and may not be employees of any component school district [§1950 (9) Ed. Code]. The BOCES itself has corporate standing [§1950 (6) Ed. Code].


New York State Legislature
①
②
Commissioner of Education
State Education Department
SED Bureaus
Bureau of School District Organization
Federal Education Agencies
⑨
–USOE
–NIE
–Others
⑨
⑤
④
③
⑦
District Superintendent
BOCES
BOCES Board
⑥
R&D
Organization
⑧
[KPU activities]
"Focus of Analysis"
Member LBEs/LEAs
⑩
Other BOCES
Colleges and Universities
Private Agencies
Nonmember LEAs/LBEs

Note: Circled numbers refer to policy relationships; these are outlined in Table VIII-7.

FIGURE VIII-3 NEW YORK BOCES AND MAJOR POLICY RELATIONSHIPS

Table VIII-3

KEY AGENCIES AND POLICY RELATIONSHIPS IN THE BOCES SYSTEM*

Number†	Policy Setting Agent	Policy Implementing Agent	Relationship
1	State Legislature	Commissioner of Education State Education Department (SED)	The New York State Legislature makes law that govern New York's education system in general, and the SED in particular. The SED, under the authority of the Board of Regents and the Commissioner of Education, has a major role in governing education in New York.
	[The New York Board of Regents is, in law and in fact, a powerful policymaking body; however, Board impact on the BOCES is indirect and is not discussed here.]		
2	State Legislature	SED	The Legislature also determines annual appropriations that, through the SED, provide partial financial support for the BOCES.
3	Commissioner of Education	BOCES governing board District superintendent	The Commissioner of Education approves or disapproves the appointment of the district superintendent, the BOCES executive officer who is appointed by the governing board.
4	Bureau of School District Organization (BSDO)	BOCES	The BSDO of the SED is responsible for reviewing and for approving or disapproving all proposed BOCES programs. Proposed programs are negotiated by the BSDO and the proposing BOCES to satisfy both BSDO criteria and plans, and BOCES needs.
5	BSDO	BOCES board	Formal approval of programs and disbursement of state funds is sent by the BSDO to the BOCES governing board. The BSDO must (1) approve a proposed program with state funding, (2) approve a program without funding, or (3) disapprove a program altogether.
6	BOCES board	BOCES	The BOCES governing board legally governs all BOCES activities and appoints the district superintendent (see number 3 above).
7	Member LEAs	BOCES	The member LEAs provide assistance to the district superintendent, through various advisory committees, in determining LEA needs and planning BOCES programs when they so choose and, in part, finance the BOCES.
8	Member LEAs	BOCES board BOCES	The member LEAs elect members of the BOCES governing board to five-year terms, the district superintendent serves as executive officer of the board. At least two LEAs must agree to participate in a program before it can be carried out.
9	Federal education agencies	SED BOCES LEAs	Federal education agencies provide guidelines and regulations to the SED and LEAs regarding participation in federally funded programs. Where the SED, the LEAs, or the BOCES choose to participate, they must comply with those formal policies promulgated by the federal agencies.
10	Other BOCES Private agencies Non-BOCES LEAs	BOCES	A BOCES may contract with other BOCES, with other educational agencies, with private organizations, and with non-BOCES LEAs. Where this is done, formal policy relationships are defined in the contract.

*Policies that prescribe these relationships are cited in text.

†Numbers refer to circled numbers in Figure VIII-3.

The law allows for the formation of BOCES from supervisory districts. Excluded from forming or belonging to a BOCES are the five New York "city districts"--New York City, Buffalo, Rochester, Syracuse, and Yonkers--although there has been some discussion of forming BOCES-type cooperatives for the city districts as well (Nyquist, 1973). [§1950 (8) and §2550 define city districts as having over 125,000 inhabitants.]

Powers of the BOCES Board

The powers of the BOCES board include the following:

(1) Appoint a district superintendent. The superintendent is subject to the approval of the Commissioner of Education, is an employee of the SED, and is paid a salary by the state (§2204 Ed. Code). The BOCES board may also pay the superintendent a supplementary salary [§1950 (4) (a) Ed. Code]. The district superintendent has two other formal roles. He acts as the superintendent of schools that are not eligible to have their own superintendent within a given geographical area called a supervisory district. As a state employee, he acts on behalf of the SED with any district or agency within his area.

> The District Superintendent, then, is much more than the superintendent of the BOCES agency. The "dual role" is a key one in the governance structure and serves as a two way communication link between the state [and] local levels for many purposes, both formal and informal (J. H. Bishop, 1975).

(2) Prepare tentative budgets for presentation at an annual meeting of member LBEs. The budget process will be discussed in greater detail below; here, however, we note that the budget is divided into administrative costs that must be shared by all member LEAs, and program costs that are shared only by participating LEAs. Formulas for determining shared administrative costs may be based on either member district true valuation or weighted average daily attendance, but not both [§1950 (4)(b) Ed. Code].

(3) Determine member district needs for BOCES services [§1950 (4)(c) Ed. Code]. This responsibility is especially important because it allows the BOCES to define members' needs toward which BOCES programs will be aimed.

(4) "At the request of component school districts, and with the approval of the Commissioner of Education, provide ... services on a cooperative basis" [§1950 (4)(d) Ed. Code]. This policy appears to be the most important in that it links all BOCES activities with SED approval and, at the same time, requires that the BOCES obtain approval (by request) from member LEAs.

(5) Upon recommendation of the superintendent, hire administrative, clerical, and professional people [§1950 (4)(e) Ed. Code].

(6) Receive and disburse and apportion funds annually; contract with other public agencies to share services and facilities, and own or lease television facilities; and contract with other public education agencies "in relation to the program of the BOCES" [§1950 (4)(f-h) Ed. Code].

(7) Contract to provide services to districts outside the BOCES [§1950 (4)(r) Ed. Code].

Reimbursement of Program Costs

Section 1950 (5) of the Education Code describes the formula by which state reimbursement for BOCES service costs is determined. Roughly 60% of the participating districts' shares are paid by the state, but only for those programs that have been approved with state funding by the Commissioner of Education. The first $9500 of each BOCES employee's annual salary is subject to state reimbursement by the formula; any amount above this annual rate is excluded and not subject to aid.

BOCES may not be reimbursed through this formula for educational television facilities and programs--a KPU activity--funded by §213 of the Education Code; however, amounts generated by contracts with school districts are subject to aid.

Two additional provisions affect the performance of, and the reimbursement for, BOCES programs. Both theoretically add to a BOCES capability to perform KPU:

(1) Nothing in this act shall prevent school districts or BOCES with the approval of the Commissioner of Education from providing cooperative educational services for which no application for state aid is to be made.

(2) Any aid apportioned or paid by the state to a BOCES experimental or special program shall not be utilized in connection with computing the apportionment to such a BOCES.

[§1950 (5) Ed. Code]

Approval of BOCES Service Programs and Budgets

The BOCES law sets forth certain activities relative to BOCES program requests for approval by the Commissioner of Education, and the setting and apportionment of the annual BOCES budget. These activities must take place within a three-month period every year. Figure VIII-4 shows these activities staged in time.

Because proposals for BOCES programs may be generated by the BOCES (in response to needs identification), the "request" activity is usually a solicitation of interest in a list of proposed programs. The BOCES organization puts together the list and distributes it among the various LEAs to determine interest. The law is clear, however, that the member LEAs may also request services, and there is no indication in policy which approach is favored.

Review of a BOCES program of services is the legal responsibility of the Commissioner of Education. The operational responsibility for this review, however, lies with the Bureau of School District Organization (BSDO), an agency within the SED.

DATE	ACTIVITY
Dates not specified in Education Code; each BOCES has its own schedule.	Component districts request program of services from BOCES
February 15	BOCES board submits program of services to Commissioner of Education for approval [§ 1950 (4) (d) Ed. Code]
March 15	BOCES must notify component districts concerning approved services for ensuing school year [§ 1950 (4) (d) Ed. Code]
April 1	Component districts must notify BOCES of intention or nonintention to participate in shared services [§ 1950 (4) (d) Ed. Code]
April 1-10	Annual meeting of school board members and trustees of component districts must be held to: (1) Elect BOCES board members to fill vacancies (2) Inspect tentative budget of BOCES for ensuing year [§ 1950 (4) (o) Ed. Code]
May 15	BOCES board must adopt budget and apportion administrative costs to component districts [§ 1950 (4) (b) Ed. Code]

FIGURE VIII-4 BOCES PROGRAM SELECTION, APPROVAL, AND BUDGETING TIMETABLE

Activities and Policies of the BSDO

The BSDO has developed a set of Criteria/Guidelines detailing the information that BOCES must include in a projected program of services submitted to the BSDO for review. These guidelines are intended to:

> - Identify and describe the various services that have been approved for BOCES sponsorship.
> - Define the criteria and standards that are used to determine whether or not approval is given to an individual application.
> - Describe the conditions or limitations, if any, that pertain to the operation of each service.
>
> (BSDO BOCES Administrative Manual, 1974)

The general guidelines are reproduced in Annex B.

Upon receipt of proposed programs of services, the BSDO performs an administrative review and then turns the individual proposals over to separate program units having specialized responsibility for in-depth review. Thus, the BSDO relies heavily on other SED bureaus for assistance in evaluating BOCES programs.

The February 15 deadline for submission of programs of services is limited to ongoing BOCES programs that are listed in the "Criteria/Guidelines for BOCES Services." Proposed services that satisfy the BSDO's definition of new services must be sent to the BSDO for review by October 31 of the year preceding implementation of the proposed service. According to a BSDO memorandum regarding "New Service Proposals," most new BOCES KPU activity would fall within this category:

> "New" services are [defined as] those which include elements requiring one or more of the "new service" decisions on behalf of the Commissioner--(a) educational merit, (b) rationale for BOCES involvement, (c) legitimacy for BOCES sponsorship.

A New Service Proposal [must be filed] for services which--

- Do not appear among those listed in the Criteria/Guidelines for BOCES Services.
- Have added elements beyond those included in an approved service for 1974-75 if there is any doubt about an approval having been given previously in some BOCES.
- Propose an upgrade or extension of any computer service operation.
- Consist largely of Developmental Activities (demonstration, trial, action/research, pilot).

(J. H. Bishop, 1974)

The selection process for new services is the same as for other programs except that additional criteria must be considered and BOCES must make application by the earlier date.

New Service Proposals must be accompanied by the following information:

(1) Description of New Service--Provide a summary description of the proposed courses, functions, and needs to be met.

(2) Rationale--Indicate why a BOCES Shared Service is necessary rather than service provided by the district(s).

(3) Target Group To Be Served--Indicate the specific target group to be served.

(4) Planning Effort--Indicate the planning which has been accomplished to date, including method used to arrive at determining the need. What involvement have the school districts had in planning? What is the school district(s)' commitment, and what coordination is there with other agencies executing similar programs?

(5) Magnitude of New Service--Indicate whether the program is immediate or long range, what program units are involved, how many students or teachers are involved, and what the financial commitment is.

(6) Evaluation Plan--Indicate the proposed procedure for evaluating the success of the project.

(SED Proposal Cover Sheet)

Whether the proposed program is "old" or "new," BOCES programs must be reviewed on an annual basis. Consequently, a BOCES service or project of longer than one year's duration may be canceled by the BSDO if circumstances warrant.

After a program of services has been reviewed, it is either approved, approved without state aid, or disapproved by the BSDO. The effect of disapproval is final. The effect of an approval without state aid is that component school districts may not be reimbursed by the state for payments made to the BOCES for an "unaided" service. However, where economy of scale and other practical considerations predominate, districts may well participate in an unaided program despite the absence of state aid. Approval with state aid is discussed in the following section on BOCES funding mechanisms.

Policies that bear on the approval of services and programs generally allow a great deal of discretion. Proposal review, for example, is not an "input/output" process; rather, it entails varying degrees of interaction and negotiation between the SED/BSDO agency and the applying BOCES. Although this interaction is not the subject of this report, its importance in the overall selection process should be recognized.

A similar negotiating process takes place between the BOCES itself and its member LEAs--first, in identifying needs; second, in selecting appropriate programs aimed at solutions; and third, in (the LEAs') choosing whether or not to participate in a given program.

BOCES Funding Mechanisms

The New York BOCES have no taxing authority and, unlike the Colorado BOCS, receive no direct aid from the state. Instead, BOCES fund their operations through a combination of administrative fees that are contracts shared among all component districts, service fees that are contracts made with participating districts, and awards from outside agencies.

The costs of administration for a BOCES are, within certain constraints, shared by all component LEAs of the BOCES [§1950 (4)(b) Ed. Code]. As noted above, the BOCES are required to adopt a budget by May 15 each year. In this budget, administrative costs are delineated separately from service costs, subject to restrictions in §1950 (5) of the Education Code. Charges against the district are then made by one of two apportionment formulas--district true valuation or weighted average daily attendance--and all component districts share these costs proportionally.

Contracts for services are the primary funding mechanisms for the BOCES. By April 1 each year, the component districts must notify the BOCES of their willingness or unwillingness to participate in service programs approved for the following year.* This fee, under §1950, is equal to the actual cost of providing the service in question; in effect, service costs are shared only among those districts that choose to participate in that service. Each participating district makes monthly payments on its contract with the BOCES. An audit of actual costs is conducted at the end of each year and becomes the basis upon which state aid is computed. State aid is then paid to the participating districts in accordance with §1950 (5) of the Education Code. The state aid formula results in a return of about 60 cents on the dollar to participating LEAs.

BOCES are also empowered to provide services by contract to nonmember LEAs and other BOCES [§1950 (4)(f),(r), and (w) Ed. Code]. Like services with the BOCES "approved without state aid," these service fees are nonreimbursable. Ordinarily, BOCES services are not requested by outside districts unless they represent substantial savings to that LEA or BOCES.

---

*One respondent indicated that there is actually considerable latitude in the "commitment for participation" process; letters of intent and similar less formal commitments may suffice, and a redetermination of participation takes place at a later time.

Finally, BOCES may receive funding from other outside sources (e.g., federal education agencies like the Office of Education and NIE, and private foundations) and from the SED under special programs [§1950 (4)(h) (2) Ed. Code].

There is one other funding mechanism (§1951 Ed. Code) that is for non-KPU activities--i.e., purchasing real property; we will not discuss it here.

Typically, a BOCES uses a combination of mechanisms to fund programs. A number of KPU projects reviewed had a mixture of funding sources, making use in particular of state aid and federal grants.

KPU Policy in One BOCES--Nassau County BOCES

The Nassau County BOCES, headquartered in Westbury, New York, is the largest of the state's 46 BOCES. It serves 56 school districts, and its 1975-76 budget is over forty million dollars. The Nassau BOCES has its own R&D Division, headed by a director who is responsible to the BOCES' district superintendent. R&D Division's 1975-76 budget is $1,192,000, of which $913,000 is for services contracted with participating districts (BOCES of Nassau County, "1975/76 Consolidated Budget Summary," 1975).

The R&D Division operates a number of KPU programs; by far the largest is the Cooperative Area Program (CAP), which is funded at $935,212 for 1975-76. CAP is a program through which member districts and BOCES R&D staff coordinate the preparation and evaluation of KPU proposals for review by the BSDO. The BOCES R&D Division has published guidelines that outline the steps in the proposal process; the following discussion summarizes the policy.

CAP Policy

CAP proposals begin through a variety of needs identification activities. A member district, a cluster of districts, the BOCES R&D Division, and others may individually or jointly identify problem areas in which R&D might provide an effective solution. The BOCES R&D Division coordinates proposal writing and disseminates proposals to other member districts to determine their interest in participation. A technique called Program Planning Specifications is used for all CAP proposals, and there is heavy emphasis on evaluation components in the proposed programs. In effect, these activities satisfy the §1950 requirements of the BOCES.

BOCES R&D Division then sends the proposal(s) to SED/BSDO for review. Upon acceptance of the proposal(s), the R&D Division coordinates the use of consultants in any approved projects.*

Generally, two kinds of developmental activities are done under CAP; the dissemination processes for these are different. Staff development proposals are distributed to all member districts, and evaluation results are compiled and distributed by the R&D Division. Curriculum development activities, on the other hand, are coordinated by the Nassau Educational Resource Center (the BOCES' "KPU library"), and CAP curricula are available to any interested member district. Finally, the BOCES R&D staff "provide [the] entire curriculum development network with a continuous evaluative feedback" (Nassau BOCES CAP Policy).

---

*A respondent indicated that most CAP projects entail curriculum development; usually, several teachers from a participating district will work in the BOCES as consultants for the duration of the project.

The BOCES R&D Division charges participating CAP districts a 15% "overhead" charge for proposal assistance, administrative support, and other BOCES staff support services. CAP projects accounted for about 92% of all Nassau BOCES R&D in 1974-75 (Callahan, 1975).

BOCES as an Influential Organization in KPU

While both the approval of the BSDO and the participation of at least two local districts are necessary to carry out a BOCES program, one respondent noted that BOCES itself plays a leading role in identifying needs and designing KPU programs. Such activity is well within the powers drawn out for BOCES in §1950 of the Education Code. The effect is that, while governing only in an operational sense, the BOCES can strongly influence what kind of KPU takes place. As a relatively larger (with respect to its member LEAs) central organization, the BOCES is also more likely to be aware of the external climate for KPU--e.g., kinds of programs being supported, the availability of funds, and exogenous policy--than its member districts. In New York, then, the BOCES are probably key agencies in the state system for conducting KPU oriented toward the classroom.

IV CONCLUSIONS AND RECOMMENDATIONS

Contrasting the Two Governance Systems

We have described in detail the formal components of governance for BOCES in New York and BOCS in Colorado. The most important factors that underlie and ultimately determine what activities do take place are (1) the needs of component school districts that can best be met by cooperative efforts and (2) most importantly, these districts' approval of and willingness to participate in programs of the BOCES. Although the Colorado and New York systems appear similar, there are important differences. Table VIII-8 outlines the major aspects of governance in both systems.

The differences that should be highlighted are (1) the agents in the governance process, their location, and their powers, (2) the actors whose needs and goals are reflected in such a process, and (3) the major incentives that encourage member LEAs to use the BOCES. All of these factors are, of course, related.

New York BOCES

Of the two types of ISAs, New York's BOCES are governed by and make use of more formal policy mechanisms. Paradoxically, the New York BOCES is probably the stronger organization and is less constrained by policy.

A configuration of three agents selects BOCES programs in New York. The BOCES itself may take the initiative in defining local needs and designing programs to meet them, but any such proposals must be approved by the BSDO and the programs must be attractive enough to elicit participation by at least two component LEAs. There is a powerful incentive for the LEAs to participate in BOCES programs, i.e., the state aid

Table VIII-6

COMPARISON OF FORMAL GOVERNANCE FACTORS

Factor	New York	Colorado
Levels of effective governance	3	2
Key links between levels		
BOCES--LEAs	Superintendent governs small LEAs BOCES board sets overall policy LEA participation and partial funding (at least two LEAs for a given program)	BOCS board sets overall policy and approves/disapproves programs LEA participation and funding
SED--BOCES	Superintendent (SED employee) BSDO review process State aid formula	SDE $10,000 grant (no more than 17 BOCS) Regional field coordinators "consultative assistance"
Formal governing agents	BOCES board through district superintendent SED through superintendent BSDO/SED through review process LEAs/LBEs through participation and BOCES board	BOCS board through executive director LEAs through program participation and advisory council LBEs through BOCS board
Fiscal policy mechanisms		
Administrative	LEA dues (two formulas)	State $10,000 grant LEA dues (several formulas)
Service programs	Participating LEAs with 60% state aid Outside contracts (grants and sale of services)	Participating LEAs Outside contracts (grants and sale of services)
Governing board makeup	Partially representative (5 to 15 members) Must live in BOCES region and not be LEA employee Five-year term	Fully representative (all LEAs represented) Must be member of LBE (a director) Term same as term on LBE
Needs and goals reflected	Statewide through BSDO review and superintendent Professional (BOCES staff) LEAs through needs surveys service requests, and participation	LEAs through participation, advisory council, and service requests Professional (BOCS staff and advisory council)

formula that returns to the participating districts about 60% of their costs. In a time of rising educational costs, it is generally to the member LEAs' advantage to do through the BOCES what they might otherwise do themselves. In particular, district activities that have low visibility--i.e., activities not necessary for a district's "image" in its community--are likely to take place under the BOCES arrangement. Most KPU probably falls into this category, although radical innovations no doubt meet with some public resistance at the LEA level.

At the same time, the BOCES must be (1) contract responsive to their clients and their member districts and (2) sufficiently aware of SED goals to design programs that are likely to be approved with state aid. The underlying goal of the BOCES system--taking advantage of economies of scale for cooperation in education--and the need to be responsive to two governing configurations have naturally led to the growth of a strong professional and administrative staff in the BOCES organization.

Finally, the district superintendent, who has several non-BOCES jobs, acts as another strong link for the three agencies, connecting the SED, the BOCES, and the BOCES' LEAs.

The New York system, then, should be considered more than a service cooperative. It is an important link in a hierarchically organized education network, communicating local needs to the SED and statewide policy and priorities to the local agencies.

Colorado BOCS

Colorado's BOCS, on the other hand, are almost completely independent of state governance. While each authorized BOCS receives an annual $10,000 grant from the SDE, this fiscal mechanism cannot be considered similar to New York's state aid formula; it is by no means a regulatory device, except that the underlying legislation restricts the number of authorized BOCS.

Colorado BOCS are "policy-constrained" in one direction only; both governance and program selection policies emphasize their tie to their member districts. Since their member districts are not reimbursed for program costs, the only incentive to use the BOCS is the advantage of cooperation.

The makeup of the BOCS governing board and the BOCS advisory council--representative of the member LBEs and LEAs respectively--further links a BOCS to its local members. Both the board and the council play active roles in program selection. The only role for the SDE is consultative, informing the BOCS of state policy and opportunities for program funding, and assisting with organizational and management problems.

Consequently, a BOCS very existence remains at the mercy of its member districts; in this sense, it is more a "cooperative" than the New York system. We do not imply that this is bad; in fact, it reflects the strong flavor of local autonomy that pervades Colorado's education system. Given these constraints, BOCS in Colorado are less likely to develop into the strong bureaucracy that characterizes the New York BOCES.

KPU in BOCES

From the perspective of KPU management, the New York BOCES might be seen as wearing "three hats"--the needs of local members, the priorities of the SED, and the internal professional and administrative interests of a strong education agency. Colorado, on the other hand, wears a "hat-and-a-half"--its members' interests and the interests of a relatively small and highly dependent agency.

What does this mean for KPU? From the perspective of formal policy, there is little difference between the two systems. Sprinkled through the important policies is the authority to do a number of things that are clearly KPU; for the most part, these are information dissemination systems and media services, in-service training for teachers, and curriculum development. Both of the BOCES carry on such activities. The respective education codes also permit any activities requested by the local members (in New York, approval of the BSDO is required), but, where we found KPU, it did not appear to deviate much from the three kinds of activities noted above.

Significant, however, in the formal policies that surround KPU activities is the requirement for needs assessment and program evaluation. Apparently the BOCES have been highly successful in formalizing these processes. This should be helpful for outside agencies that have the role, either assigned or voluntary, of promoting and supporting innovation.

Likewise, the recent history of KPU in both BOCES organizations suggests that these ISAs are effective in continuing exemplary KPU programs after initial funding has ended. That such activities must be of substantive value to at least some of the member districts supports our contention that the most meaningful KPU is that which finds its application at the local level. The BOCES, then, can be seen as potentially important KPU dissemination agencies.

Recommendations

Generally, we make two kinds of recommendations in this study. First, we have looked only at formal policy and only to a certain level of detail; consequently, our description is only partial, and we want to recommend possible extensions of this kind of research effort. Second, the information we have collected does lead to some recommendations for both improving communication and dissemination between KPU agencies at different levels, and for monitoring the climate for KPU in the two ISAs and their member districts.

Further Studies

(1) This study indicates that the most important governance considerations revolve around program selection policies and funding mechanisms. While a number of earlier studies, especially Stephens (1975), describe the general framework within which other ISAs (or RESAs) operate, they do not necessarily detail either of these factors within a common framework. A more detailed analysis of formal policy in these areas would prove useful to outside agencies that promote and fund KPU, and to state education agencies interested in the ISA concept for their own states.

(2) This study looked only at formal policy; for the most part, this was policy as it now exists. To better assess the effects of governance, a study that reviews KPU program history in the various ISAs--both those studied here and those not considered--should prove a good measure of how well policies actually work. Given the nature of ISAs, such research should be conducted at the level of the intermediate agency; for the most part, it would consist of survey research. Tied to a more comprehensive explication of policy, such an effort should improve information about both governance and KPU activities.

(3) In the two governance systems studied, the inclinations, whether formal or not, of member LEAs were found to be important factors in the selection of KPU programs. We did not look for formal statements of such interest. Such statements may exist in the policies of LBEs or in the needs statements prepared by LEA staff, but certainly the records of LBE meetings would indicate some of the rationale behind electing to participate or not. A more detailed policy analysis at the local level might reveal these criteria, but such a study would no doubt be expensive. While research of this nature might prove useful, we believe that consideration of costs versus benefits would preclude research of this nature. However, it should be considered as a potential project.

(4) Finally, we have merely alluded to the informal factors that are an important part of governance. An analysis such as this one does require a better understanding of these factors, and, in general, we consider such an extension of the framework to be a logical next step. Extending this paradigm to consider informal factors is discussed at length elsewhere in the overall report.

KPU Monitoring and Policy

(1) Although for different reasons, there is a single agency in each state studied that is a focal point for ISA information. In Colorado, this agency is the Regional Field Coordinators Unit of the Colorado Department of Education; in New York, it is the Bureau of School District Organization of the State Education Department. We recommend that NIE monitor these agencies to collect information about (a) the history of KPU activities in the states' ISAs, (b) local needs and priorities for KPU, and (c) changes in state and local policy that might affect these activities. Conversely, NIE should consider the two agencies as primary dissemination points for information about NIE programs and policy; both agencies should be willing to distribute these data to their respective BOCES.

(2) Both ISA systems should consider the value of shared information. While Colorado already has two mechanisms for sharing--the regional coordinators and the Colorado BOCS Association--we identified none in New York. While it would be naive to assume that informal networks do not already exist, we do encourage strengthening them. "Invisible colleges" that include both the BOCES and the member districts should provide an effective forum for exchanging information about management in general, and innovation activities in particular. NIE should consider supporting such an effort.

(3) Other SEAs should find this report useful. While it is not certain that ISAs represent the "wave of the future" in educational governance, they are clearly one of a number of viable institutions being used to improve services for local agencies. The information we present here should provide good background for other states considering ISAs.

(4) The effectiveness of needs assessment and program evaluation policies leads us to recommend them as potential policy models for other education agencies--federal, state, and local. Insofar as these techniques are increasingly important in decision making and planning, formal means of fostering their acceptability to agencies more inclined to do things "the same old way" are important aspects of organizing for innovation.

(5) Finally, the ability of BOCES to continue exemplary programs after initial funding has ceased provides an important example for both NIE and other agencies promoting innovation responsive to local needs. The policy mechanisms that underlie this success should be considered as potential models for solving continuation problems that plague other agencies.

Conclusion

BOCES in New York and BOCS in Colorado are examples of regionalism in education in general, and of intermediate service agencies in particular. A number of factors noted here and elsewhere in the education literature (e.g., declining enrollment, increasing age of the teacher population, and strains on local education funding sources like property taxes) indicate that intermediate service agencies may become increasingly important actors in the public education system. An understanding of how and what needs are now being met by BOCES and other ISAs can aid KPU and other education planners in designing the educational organizations and programs of the future.

Annex A

TAXONOMY OF POLICIES

MOST SIGNIFICANT POLICIES: COLORADO BOCS SYSTEM

Policy Name	Reference Citation	Policy Type and Generation Process	Source	Explanation of Significance
Colorado State Constitution	Article IX, §15 and 16	Constitution	Colorado State	Establishes LBEs/LEAs: emphasizes local autonomy
BOCS Act of 1965, as amended	Article 5, State Education Code	Statutory Law (Enactment)	Colorado Legislature	Establishes and prescribes governance structure of BOCS; most important is local control by member LBEs/LEAs
Contracting Law	§23 of 123-30 Colorado Revised Statutes, 1965	Statutory Law (Enactment)	Colorado Legislature	Permits LBEs/BOCS to contract with other agencies
Public School System Law	§123-1-7(d),(g),(j),(m), and (12)	Statutory Law (Enactment)	Colorado Legislature	Prescribes activities for SDE in assisting LBEs/BOCS
(Part of Education Code)	§22-2-106(1)(a) State Education Code	Statutory Law (Enactment)	Colorado Legislature	Establishes SBE responsibilities in coordinating K-12 education
Regional Coordinator Unit Plan, FY 1976	SDE, Office of Field Services Archives	Administrative Law (Discretionary Act)	Director, Regional Field Service Coordinators	Sets activities and budget for providing consultative assistance to BOCS and BOCS Association
NCEBOCS Bylaws	NCEBOCS Bylaws	Constitution	Board of NCEBOCS	Establishes NCEBOCS as a corporation and emphasizes local member control

MOST SIGNIFICANT POLICIES: NEW YORK BOCES SYSTEM

Policy Name	Reference Citation	Policy Type and Generation Process	Source	Explanation of Significance
Intermediate District Laws	L. 1948, Ch. 861, §1	Statutory Law (Enactment)	New York Legislature	Purposes of intermediate agencies
BOCES Law	§1950-51, Article 40, State Education Code	Statutory Law (Enactment)	New York Legislature	Establishes and prescribes governance structure of BOCES; emphasizes three levels: member LBEs/LEAs, BOCES, and Commissioner of Education
(Part of Education Code)	§2204, Education Code	Statutory Law (Enactment)	New York Legislature	Responsibilities and powers of district superintendent of supervisory districts
Criteria/guidelines for BOCES proposals	BOCES Administrative Manual, Part IV	Administrative Law (Regulation)	BSDO in SED	Criteria and guidelines for BOCES programs of services
Criteria for BOCES "new service" proposals	Not codified (BSDO memo, 1974)	Administrative Law (Regulation)	BSDO in SED	Defines what "new services" are and what proposals for them must include
SED proposal cover sheet	Not codified (BSDO Archives)	Administrative Law (Discretionary Act)	BSDO in SED	Information that must be contained in BOCES programs of services proposals
Cooperative Area Program Guidelines	Nassau County BOCES R&D Division Archives	Administrative Law (Guidelines)	Nassau County BOCES R&D Division	Prescribes joint activities of BOCES R&D Division and member LEAs in initiating KPU proposals and disseminating project information

Annex B

NEW YORK BSDO CRITERIA AND GUIDELINES

Annex B

NEW YORK BSDO CRITERIA AND GUIDELINES

General Principles Governing Boards of Cooperative Educational Services

BOCES in effect became the permanent agency at the intermediate level of the New York State system of public schools by two legislative actions. In 1967, action was taken to authorize the acquisition of land and buildings; in 1972, the authorization for the formation of intermediate districts was repealed.

It should be emphasized that no matter how excellent the program and operation of the intermediate agency may be, the school district is the basic unit for providing instructional services. The BOCES should not be considered as a substitute for adequate districts.

Principles governing the operation of boards of cooperative educational services are outlined below.

(1) BOCES services to districts are to be considered as an arm of the local school districts to supplement, advise and support the activities and services operated by districts.

(2) Any activity operated by a BOCES will be expected to meet all of the current requirements of the Education Law, Regulations of the Commissioner and recognized standards of practice that would be applicable to a school district operating a similar activity, unless the BOCES is specifically excepted.

(3) Component districts (users) should be directly involved in the planning and decision making leading to the establishment and operation of shared service programs. A new service should be initiated on the basis of established need, after component districts have indicated interest in, acceptance of and commitment to support the service.

(4) Cooperative programs and services should avoid duplicating, overlapping or de-emphasizing responsibility which properly belongs to the school district.

(5) Each shared service should be developed on the basis of effectiveness or economies or as a demonstration project or some combination of these factors.

(6) Duplication of state aid should be avoided.

(7) There must be clear justification for a shared program or service when such would supplant services expected from school district sponsorship.

(8) Shared itinerant classroom teachers should be limited to school districts where quality of programs can best be maintained by part-time staff assignment.

(9) New services, programs and administrative functions should be initiated only when adequate and competent personnel can be employed and satisfactory arrangements secured in order to ensure the success of the activity.

General Criteria for the Operation of Boards of Cooperative Educational Services

(1) Any function or service supported within the service budget of a BOCES must be approved. An application for EACH such service must be submitted and approved by the Commissioner of Education before that service begins, regardless of the source of funding.

(2) Each aided service must be operated on a shared basis.

- A service rendered to a single district is not considered a shared service. Each service must be provided to two or more districts to be considered a shared service, a requirement for aid eligibility.
- Application and approval of an area service is for the "program" presented rather than for the portion used by each individual district.
- A service shared by schools in two or more BOCES must originate with one board and is secured by other boards through purchase contract.

(3) BOCES may provide services for which no state aid is claimed. The Commissioner's approval is required. In some instances, specific criteria applying to similar aided services may be waived.

(4) Services provided must meet or exceed recognized standards to justify the use of BOCES aid. It is particularly important that--

- Teachers and other professional employees of BOCES shall be subject to the same requirements for certification as if they were employed by school districts.
- Physical facilities essential to providing a satisfactory environment for the service proposed must be available and meet standards and requirements of the Department [SED].

(5) In regard to itinerant personnel--

- A single district is limited to three-fifths (60%) of a person's time. A district may not expect to use most of person's time in token sharing with other districts.
- For each new service application, the district superintendent shall submit two copies of a written statement explaining the circumstances and an explanation supporting, with reasons, the service requested.
- Where itinerant services are proposed for school districts subject to reorganization, evidence must by presented to indicate that such services will not postpone or retard progress toward reorganization. It may be necessary to limit, disapprove or discontinue aided services to such school districts.
- Combinations of classroom teaching or special service personnel for a single district which may be considered a full-time local position will not be aided as shared services; e.g., Agriculture/Industrial Arts, Nurse-Teacher/Attendance Teacher, Industrial Arts/Driver Education.

(6) A person may not be an employee of a BOCES providing a service to a school district and at the same time be an employee of that school district in a similar or different instructional area.

(7) Approval of a service is for one year only. Each service will be reviewed annually through the Bureau of School District Organization and other appropriate program units to determine which may be continued.

- Annual evaluation will consider long range plans of the Department as well as specific criteria appropriate to the service.
- The practical effects upon the services to children will have a bearing on the mechanics of phasing out a program.

(8) Approval of service applications should not be expected in these circumstances.

- Where the proposed service would replace services presently (sic) provided on a sound basis by individual districts, or
- Where the proposed service could or should be rendered effectively by the individual districts.

(9) Sparsity of population, distance, travel time and other pertinent factors will be given consideration with respect to applying criteria for any specific service.

(10) Major area programs such as occupational education, and computer services are to be developed with ongoing user committee involvement at the technical and executive levels, particularly during the phases of planning, monitoring and evaluation.

REFERENCES[*]

Bishop, J. H. (private communication, 25 September 1975).

BOCES of Nassau County, "1975/76 Consolidated Budget Summary," Board of Cooperative Educational Services of Nassau County, Westbury, New York (1975).

Brubacher, R. G., Colorado Boards of Cooperative Services, Office of Field Services, Colorado Department of Education, Denver, Colorado (January 1975).

Callahan, W. T., Memorandum to members of the Board of Education, Board of Cooperative Educational Services, Nassau County, New York (3 February 1975).

Colorado BOCS Study, prepared by Colorado BOCS Association, in cooperation with the Northern Colorado BOCS, San Juan BCCS, and the Colorado Department of Education (March 1975).

Colella, H. V., and H. Foster, "BOCES: A Delivery System for Special Education," Phi Delta Kappan, Vol. LV, No. 8, pp. 544-545 (April 1974).

Lavin, R. J., and J. E. Sanders, Organizing for Improving Delivery of Educational Services in Massachusetts: Vol. 2: A Review of Educational Cooperatives and Their Various Forms, Merrimack Education Center, Chelmsford, Massachusetts (March 1974).

Nyquist, E. B., "How BOCES Serves the Metropolitan School Systems Concept in New York State," Phi Delta Kappan, Vol. LV, No. 1, pp. 26-81 (September 1973).

Stephens, E. R., "Regional Educational Service Agencies," ERS Monograph Series, No. 29, Contract OEC-0-8-080353-3514, Educational Research Service, Washington, D.C. (1975).

Weld County BOCES information handout, Weld County Board of Cooperative Educational Services, LaSalle, Colorado (1974).

---

[*] Reference citations for policies are presented in Annex A.

SELECTED BIBLIOGRAPHY

"Boards of Cooperative Educational Services: An Examination of a Temporary Program after 25 Years of Operation," New York State Office of Education Performance Review, Albany, New York (December 1973).

"Educational Regionalism for Elementary, Secondary, and Continuing Education in New York State," Draft paper, Assistant Commissioner for District Organization and Services, the State Education Department, New York, New York (December 1974).

Egner, J. R., et al., "Regional Educational Development in New York State," A Project Report, Vols. 1 and 2, New York State Education Department (May 1970).

Hughes, L. W., et al., "Interpretive Study of Research and Development Relative to Educational Cooperatives " Final Report, Grant OEG-0 70-2487(508), Tennessee University, Knoxville, Tennessee (15 January 1971).

Isenberg, R. M., "States Continue to Reorganize Their Intermediate Units," Planning and Changing, Vol. 2, No. 2, pp. 60-69 (July 1971).

Neidt, C. O., "Evaluation of the Information Retrieval Center of the Northern Colorado Educational Board of Cooperative Services," Human Factors Research Lab, Colorado State University, Fort Collins, Colorado (30 June 1971).

Stephens, E. R., "A Profile of Exemplary Regional Education Service Agencies," Planning and Changing, Vol. 3, No. 3, pp. 33-41 (Fall 1972).

Stout, J. B., "The Intermediate Unit as Change Agent," paper presented at American Association of School Administrators, Annual Convention, San Francisco, California, 17-21 March 1973.

Tanzman, J., "All About Educational Service Centers," School Management (May 1972).

The Fleischmann Report, Vol. III (The Viking Press, New York, New York, 1973).

"What's a BOCES?" Board of Cooperative Educational Services, Jericho, New York.

Case Study IX

POLICIES AFFECTING THE RESULTS OF THE FEDERALLY SPONSORED PILOT STATE DISSEMINATION PROGRAM IN SOUTH CAROLINA: 1970-73

by

Arni McKinley
and
Victor Walling

CONTENTS

LIST OF ILLUSTRATIONS. . . . . IX-v

LIST OF TABLES . . . . IX-v

I INTRODUCTION. IX-1

II SUCCESS OF THE ANALYTICAL FRAMEWORK IN THIS CASE STUDY. . IX-3

III BACKGROUND OF THE PILOT STATE DISSEMINATION PROGRAM . . . IX-5

IV METHOD AND INTERIM RESULTS IX-7

Round I: Preinterview Work IX-7

Step 1: Identifying the Purpose of Our Inquiry. . . IX-7
Step 2: Identifying the Focus of Inquiry. IX-8
Step 3: Identifying the Key Configurational Elements IX-8
Step 4: Image Development of the PSDP Structure and Its Environment. IX-11

Round II: Postinterview Work IX-19

Step 1: Refining the Purpose of Analysis. IX-19
Step 2: Refining the Focus and Field of Analysis. . IX-21
Step 3: Refining the Four Configurational Elements in Detail. IX-22
Step 4: Refining the Maps of the PSDP Environment and Its Governance Structure IX-32

Round III: Final Analysis and Write-Up IX-32

V SUBSTANTIVE RESULTS AND CONCLUSIONS: A BRIEF ANALYSIS OF THE ROLE OF POLICY IN THE SOUTH CAROLINA PILOT STATE DISSEMINATION PROGRAM (PSDP). IX-35

History of the PSDP IX-35
The Achievement of PSDP Goals IX-39
Conclusions IX-43
The Future of Information Dissemination in South Carolina. IX-44

ANNEXES

A CRITICAL POLICIES AFFECTING THE ACCOMPLISHMENT OF GOALS IN THE SOUTH CAROLINA PSDP. IX-45

[illegible] CRITERIA FOR FUNDING AS SPECIFIED BY USOE'S RFP. . . IX-49

C TAXONOMY OF POLICIES CONSIDERED SIGNIFICANT IN THE STUDY OF THE SOUTH CAROLINA PILOT STATE DISSEMINATION PROGRAM. IX-53

BIBLIOGRAPHY IX-57

ILLUSTRATIONS

IX-1 Focus and Field of Analysis. IX-9

IX-2 Original Map of the PSDP and Its Environment IX-12

IX-3 Federal Influences on the PSDP Environment IX-13

IX-4 USOE Influences on the PSDP Environment. IX-14

IX-5 SEA Influences on the PSDP Environment IX-15

IX-6 LEA Influences on the PSDP Environment IX-16

TABLES

IX-1 The Four Configurational Elements. IX-10

IX-2 An Historical Overview of the Pilot State Dissemination Program. IX-17

IX-3 Sample Worksheet IX-18

IX-4 Questions Generated from the Diagrams. IX-20

IX-5 History of the Pilot State Dissemination Program in South Carolina. IX-33

I INTRODUCTION

In 1970, the federal government funded three states--Oregon, South Carolina, and Utah--to establish pilot dissemination programs utilizing the extension agent concept that had worked successfully for the Department of Agriculture. The Pilot State Dissemination Program (PSDP) offers two characteristics of considerable interest to our overall study. First, it deals with a novel method of dissemination, one which by virtue of its structural characteristics should be an interesting case from the standpoint of knowledge production and utilization (KPU) governance. Second, it is an exploratory program, one in which almost by definition the governance needs to be flexible and adaptable to emerging findings.

The purpose of this discussion is to view one of the three pilot state programs through the window of the analytical framework in an attempt to isolate those policy-related elements that either promoted or hindered the achievement of goals as explicitly defined in the state's proposal and as implicitly developed during the program. Such knowledge should lead policymakers at the local, state, and federal levels to additional criteria useful in future program design.

As with the other case studies, this inquiry was conducted as a test of the analytical framework; no conclusions should be drawn from this material other than those concerning the degree of coherence and organization that the framework gives to the substance of the material gathered. The analyses were based on a systematic application of the analytical framework to the results of three days of interviewing and to the written documents accumulated during that time; the results are therefore rather limited in scope. A comprehensive study would have required more interviewing, data gathering, and detailed analysis than resources permitted.

However, a detailed analysis of the Pilot State Dissemination Program (PSDP) is available in the evaluation sponsored by the U.S. Office of Education (USOE) (Sieber et al., 1972)[*] and in a report written by the South Carolina PSDP Director (Ellis, 1973).

This presentation has two major parts. The first formally outlines the cyclical process that was used in studying the topic (see Section IV). The second is a narrative of the South Carolina case as it might be written for presentation to some authority (see Section V).

---

[*] A bibliography, including references cited in this case study, is appended to this report.

II SUCCESS OF THE ANALYTICAL FRAMEWORK IN THIS CASE STUDY

The purpose of this case study was to test the ability of the analytical framework to identify those policy-related elements that either promoted or hindered the achievement of explicit or implicit program goals. We believe the framework to be eminently successful in this purpose on topics such as the Pilot State Dissemination Program. We believe that, even with the minimal time and resources spent on this case study, we quickly identified the crucial issues.

Furthermore, we feel qualified to make the following recommendations and observations to the staff of USOE and to state agencies:

- Policies should be written to expand "areas of freedom," rather than to delineate boundaries on action.
- Flexibility should be permitted in request for proposal (RFP) guidelines if such flexibility leads to a closer match with state and local needs or existing plans.
- A program will be beneficial if each member of the key program staff is given a respectable degree of freedom in mating the program with individual needs.
- A program is more likely to find a secure foothold within the SEA after federal funding discontinues if a clear link has been shown with SEA future plans and future financial capabilities.
- Programs are not run principally by formal policies, but rather by politically and economically aware persons who establish informal policies to find the most appropriate way of proceeding before establishing formal policies.
- A program will find its way through the political, economic, and bureaucratic maze if its key staff consciously utilizes the political, economic, and bureaucratic context surrounding the program. Such conscious activity should be required of program officers in every contract.

- Sensitivity to cultural differences among states is necessary, as such differences might be reflected in submitted proposals.
- In program evaluation, a superficial examination may not be enough. Weeks of active participation may be necessary to comprehend reasonably well what is actually occurring. The analytical framework as a tool for evaluation and comparison is excellent for systematically organizing large amounts of information; however, caution should be exercised in establishing the bases and criteria on which the evaluation is to be made, since the framework does not make them evident.

III BACKGROUND OF THE PILOT STATE DISSEMINATION PROGRAM

In 1970, USOE issued an RFP outlining a Pilot State Dissemination Program that was designed to assist State Education Agencies (SEAs) in improving educational practice and in helping Local Education Agencies (LEAs) install tested innovations and programs. For some time USOE had been developing sources of information useful to educators. The PSDP grew from a recognition that innovative ideas suggested by such information were not finding their way into practice--indeed, that there might need to be active promotion of this material. The Office of Education wanted to determine whether information, retrieved in a clean, effectively edited format and then hand carried to educators, would ensure sufficient utilization. This idea was directly modeled on successful attempts by the Department of Agriculture to inform farmers of new methods through agricultural extension agents (Rodgers and Shoemaker, 1971).

The RFP (see appendix in Sieber et al., 1972) required that the state initiate a team effort directed from a high-level administrative position within the SEA of the participating states. A staff was to retrieve information from the Educational Resource Information Center (ERIC)--a computerized source of information developed with USOE funds during the 1960s--and pass it on to the field agents, who in turn would pass it on to educators commensurate with their needs.

Three states won funding to develop the three-year program. Technical assistance came from the University of Missouri, and a detailed evaluation was done by Columbia University (Sieber et al., 1972).

IV METHOD AND INTERIM RESULTS

The framework tested consists of the five steps described in the main volume of this study. For completion, this particular case study required three full cycles of the framework's first four steps. Each cycle is here referred to as a "round":

- Round I: Preinterview work
- Round II: Postinterview work
- Round III: Final analysis and write-up.

Only the results of the work associated with each step within each round are included in the following pages. It should be emphasized that use of the analytic framework requires creativity and reflection, as does use of any method of inquiry. Such inputs are essential to exploit fully the potentials of the methodology.

Round I: Preinterview Work

In the beginning, the research team found the topic nebulous, at best. All information necessary for developing the initial skeletal structure of the analysis as dictated by the framework came primarily from the grapevine and the literature. The first four steps were fleshed out with the following material.

Step 1: Identifying the Purpose of Our Inquiry

The policy environment of the federally funded PSDP, 1970-73, was to be considered for two reasons: to document policies that dealt with the establishment and governance of the programs in the selected states, and to isolate those policies significant to the achievement of the goals of the states' respective programs. Such knowledge might well lead to a clearer understanding of the policymaking process and to new criteria useful in establishing better educational programs at the federal, state, and district levels.

USOE's 1970 RFP was the obvious source for finding USOE's opinion on the goals of this program. Essentially it was designed to assist SEAs in accelerating the improvement of educational practice and the installation of tested innovations and programs by local school districts. The basic structure was seen as a program team consisting of a director, reference and retrieval staff, and field agents. Special emphasis rested on testing the field agent idea.

Step 2: Identifying the Focus of Inquiry

The primary focus of analysis was the educational extension field agent, a person intended by the federal agency to be the means of distributing innovative educational material. All policies that impact on the agent were studied within a local "field of analysis" that included the influences principally of the SEA, other state government agencies, and the LEAs. The analytic framework required the development of a mapping scheme to show these influences more explicitly. Figure IX-1 identifies the field and the focus of analysis, the actors, and the lines along which policies move.

Step 3: Identifying the Key Configurational Elements

This step sought to distinguish four fundamental elements of every policy question: who the involved actors were, which resources they had at hand, what policies they set or complied with, and in which activities they participated. Table IX-1 was the first attempt at detailing these elements.

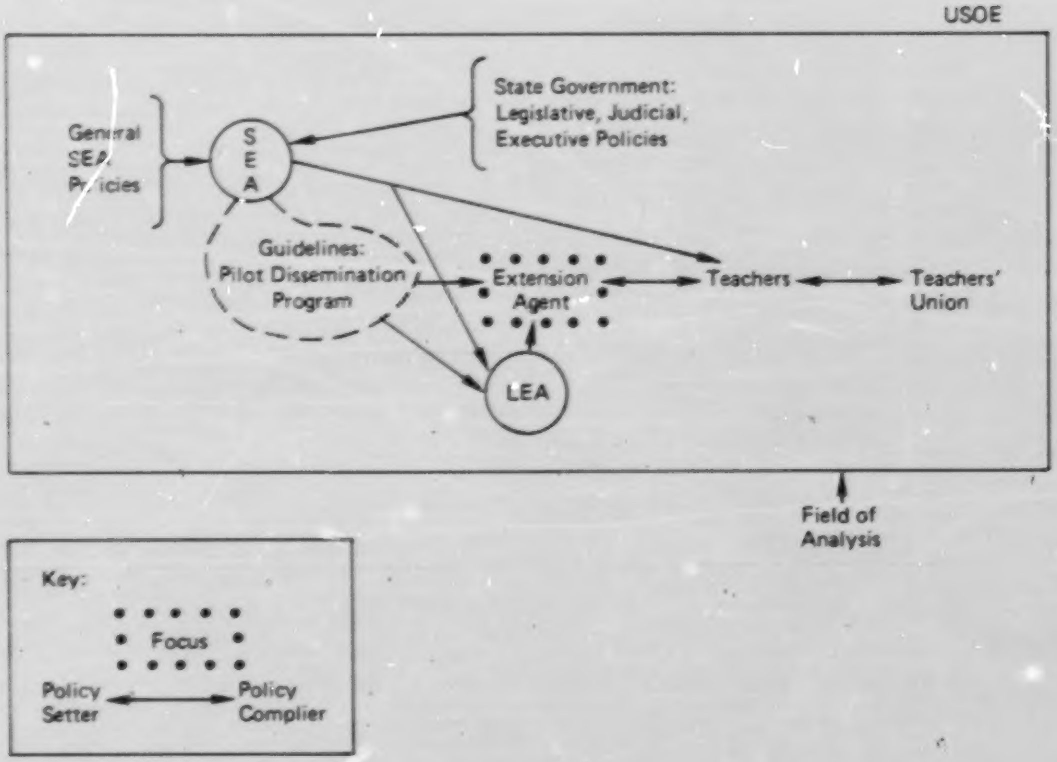

USOE
General SEA Policies
S E A
State Government: Legislative, Judicial, Executive Policies
Guidelines: Pilot Dissemination Program
Extension Agent
Teachers
Teachers' Union
LEA
Field of Analysis
Key:
Focus
Policy Setter
Policy Complier

FIGURE IX-1 FOCUS AND FIELD OF ANALYSIS

Table IX-1

THE FOUR CONFIGURATIONAL ELEMENTS

Actors	Proposal writers; SEA and LEA administrators, especially program administrators; reference and retrieval specialists; computer operators; field agents; secretaries and staff; legislators; judicial and executive members; teachers; and teachers' union.
Policies	Policies are statements that define the direction of the program; some policies carry the force of law, some do not, yet the latter are adhered to because they spring from responsible authority. In particular: Policy Setters to → Policy Compliers State government → SEA Actors within SEA → Other actors within SEA SEA $\xrightarrow{\text{via program}}$ Field agents SEA → LEA LEA → Field agents LEA → Teachers SEA → Teachers
Resources	Funding and allocation; information sources; and materials and products from educational concerns, including Minicourses, textbooks, audiovisual, and television.
Activities	Activities of importance focus principally on establishing and continuing the program (proposal writing, choosing personnel, communicating within SEA, and the like). Activities are performed by individuals with specific, functioning roles. They include duties and tasks as outlined by formal and informal policies. In particular, activities are performed by the SEA, the program staff, the agents, teachers, the LEA, and the state government.

Step 4: Image Development of the PSDP Structure and Its Environment

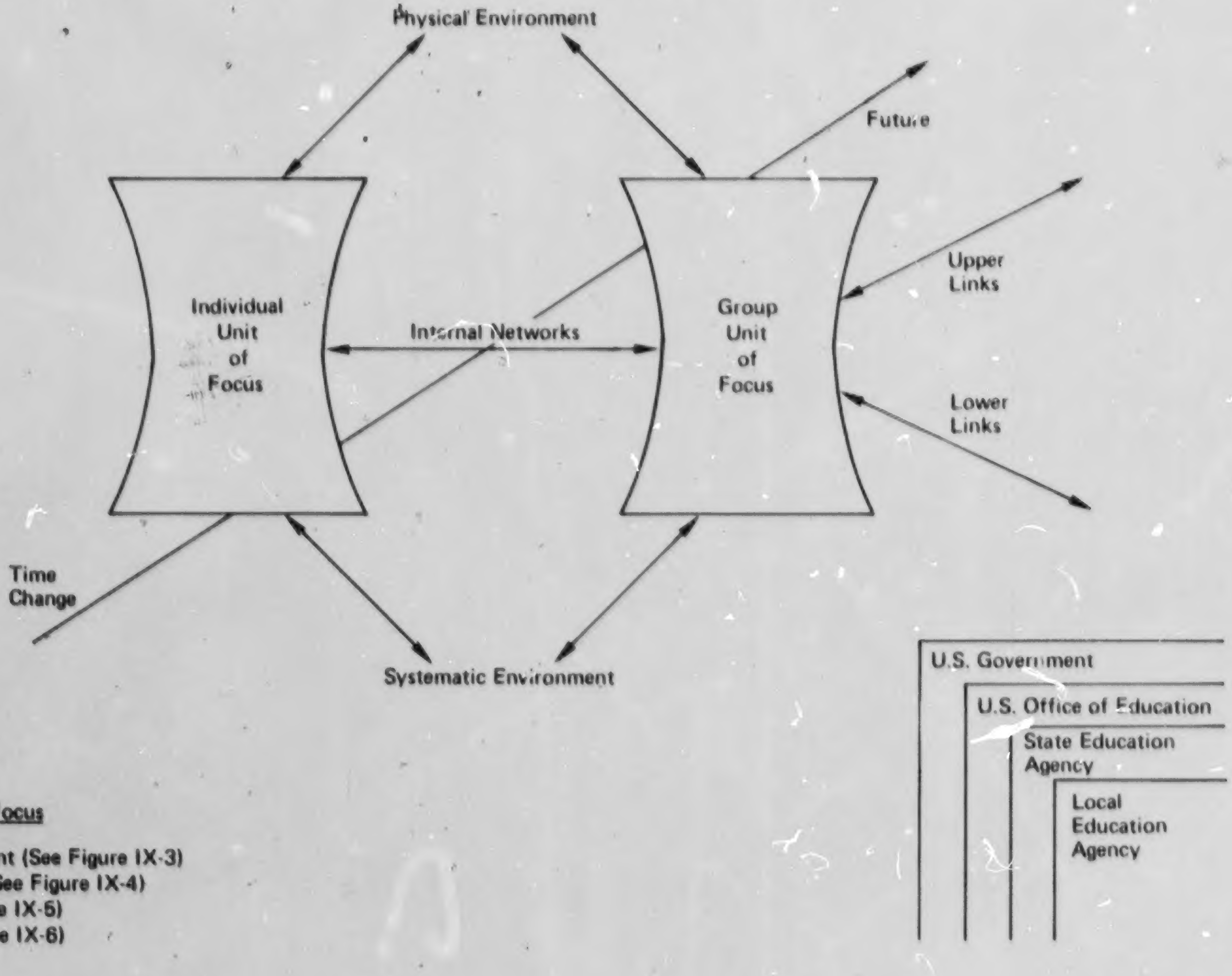
Extensive preliminary diagrams were drafted to refine the initial focus and field. The first (Figure IX-2) attempted to make the study more comprehensive by visualizing every conceivable, influential factor. Four fields of complexity (LEAs, SEAs, USOE, and the federal government) appeared to interact closely; yet, at the same time, each maintained its autonomy. Policies generated at the local level often occurred in response to state policies, which responded in turn to federal suggestions from USOE. The latter is the direct extension arm of the federal lawmakers.

Figure IX-2 says that the individual unit of focus within the field communicates with concerned groups over internal networks. A physical environment surrounds all entities; the systemic environment is the economic and political situation. All five elements change over time.

This general diagram was expanded to substantial detail on each field of complexity. Figures IX-3 through IX-6 show each field as it existed during the 1970-73 program. The arrows represent the paths along which policy moved; in most cases these were not known, but only suspected. Indeed, the interviews made clear that a substantial percentage of the potential paths had never carried any formal policies or laws.

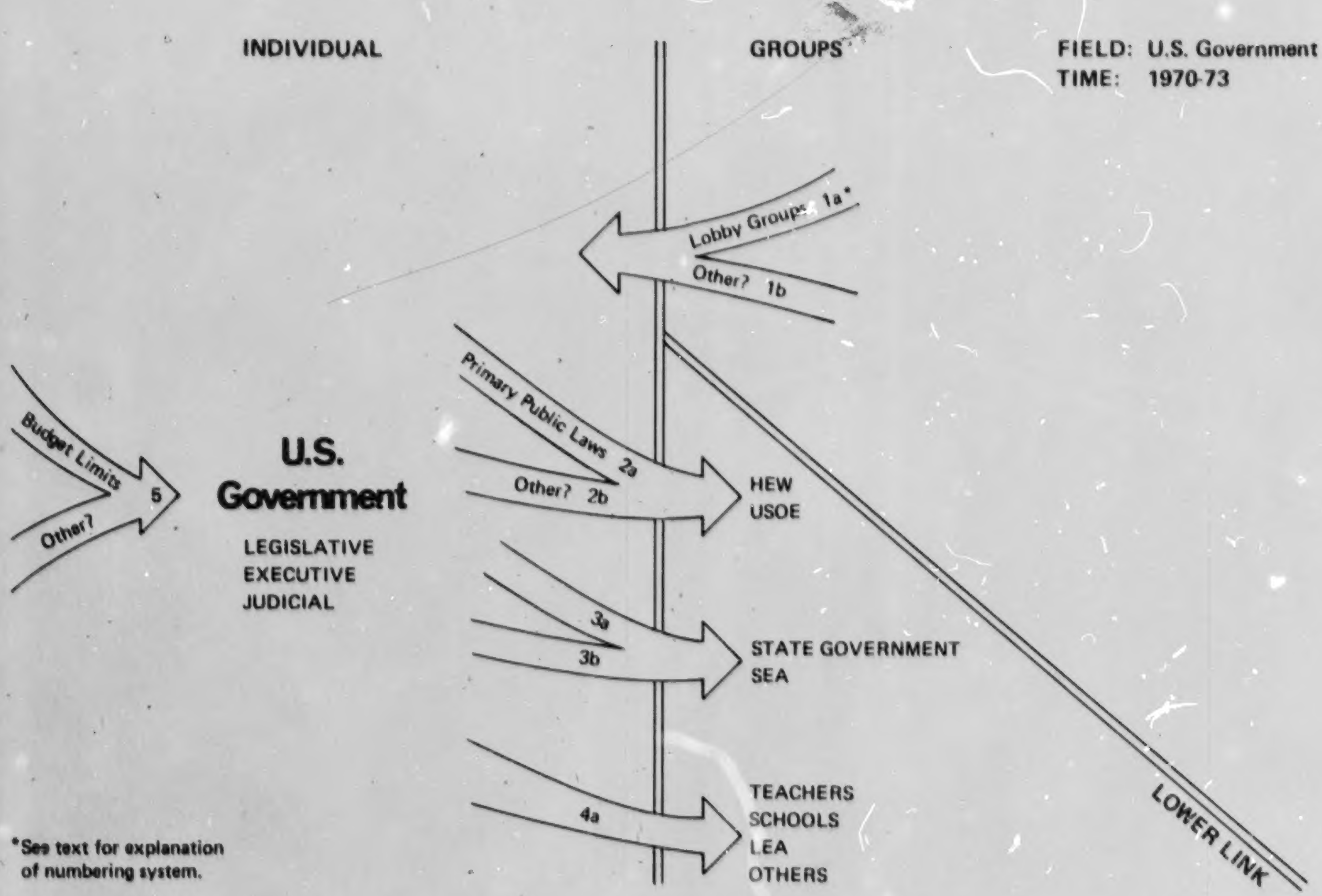
Table IX-2 was generated in response to time changes. It is a rudimentary history of the PSDP as seen from the federal level.

This mapping scheme made the codification procedure for formal policies quite straightforward. The upper right-hand corner of each worksheet (Table IX-3) was marked with three items; the first gave the field name, that is, the U.S. government (USG), USOE, SEA, or LEA; the second, the year during which this policy was created; the third, the path along which the policy of that worksheet moved. A numbering system,


Physical Environment
Future
Upper Links
Lower Links
Individual Unit of Focus
Internal Networks
Group Unit of Focus
Time Change
Systematic Environment
U.S. Government
U.S. Office of Education
State Education Agency
Local Education Agency

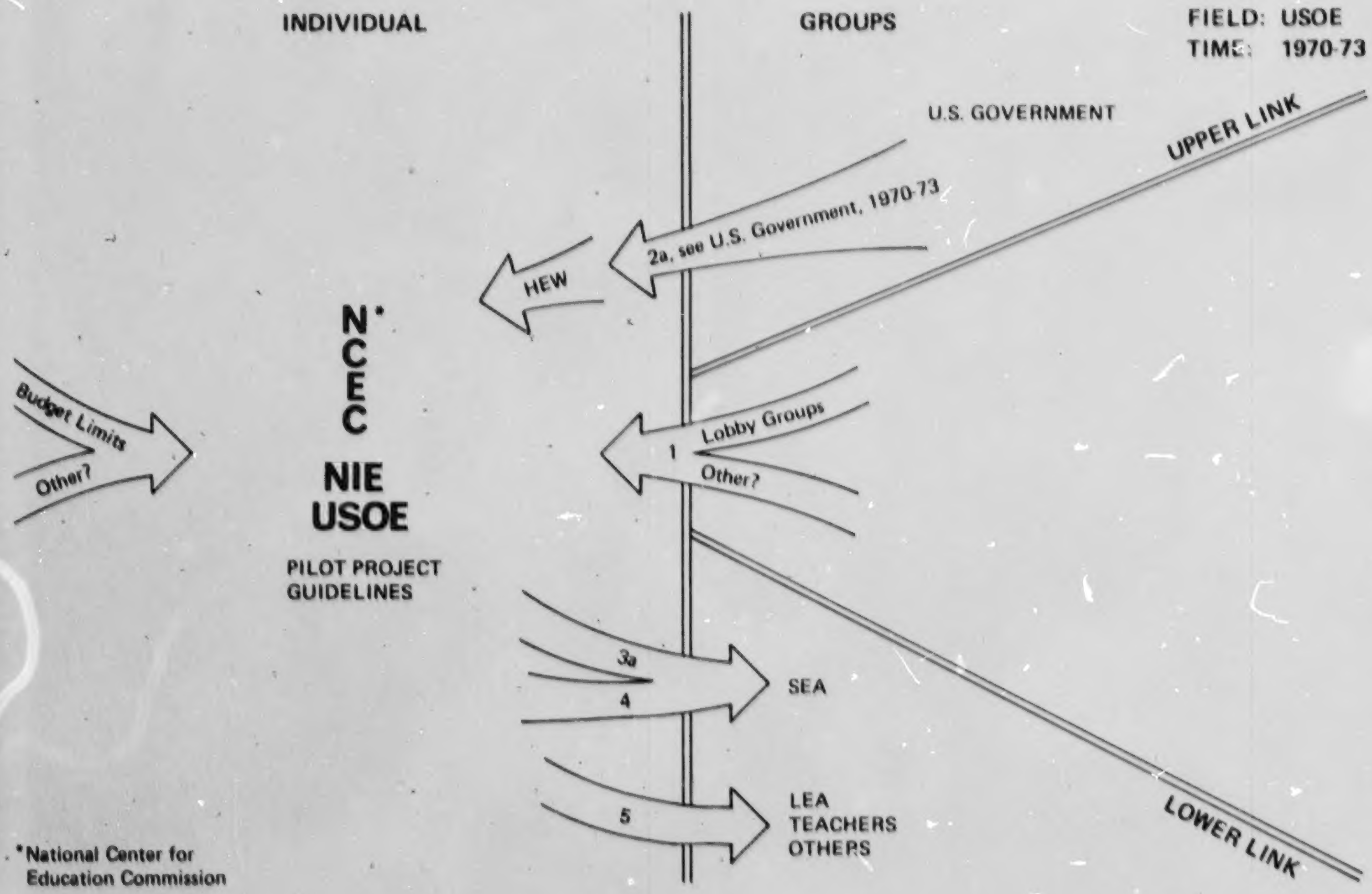
Field	Individual Focus
I	U.S. Government (See Figure IX-3)
II	HEW - USOE (See Figure IX-4)
III	SEA (See Figure IX-5)
IV	LEA (See Figure IX-6)

FIGURE IX-2 ORIGINAL MAP OF THE PSDP AND ITS ENVIRONMENT


INDIVIDUAL
GROUPS
FIELD: U.S. Government
TIME: 1970-73
Lobby Groups 1a*
Other? 1b
Budget Limits
Other?
5
U.S. Government
LEGISLATIVE
EXECUTIVE
JUDICIAL
Primary Public Laws 2a
Other? 2b
HEW
USOE
3a
3b
STATE GOVERNMENT
SEA
4a
TEACHERS
SCHOOLS
LEA
OTHERS
LOWER LINK

*See text for explanation of numbering system.

FIGURE IX-3 FEDERAL INFLUENCES ON THE PSDP ENVIRONMENT


INDIVIDUAL
GROUPS
FIELD: USOE
TIME: 1970-73
U.S. GOVERNMENT
UPPER LINK
2a, see U.S. Government, 1970-73
HEW
N*
C
E
C
NIE
USOE
PILOT PROJECT
GUIDELINES
Budget Limits
Other?
1
Lobby Groups
Other?
3a
4
SEA
5
LEA
TEACHERS
OTHERS
LOWER LINK

*National Center for Education Commission

FIGURE IX-4 USOE INFLUENCES ON THE PSDP ENVIRONMENT

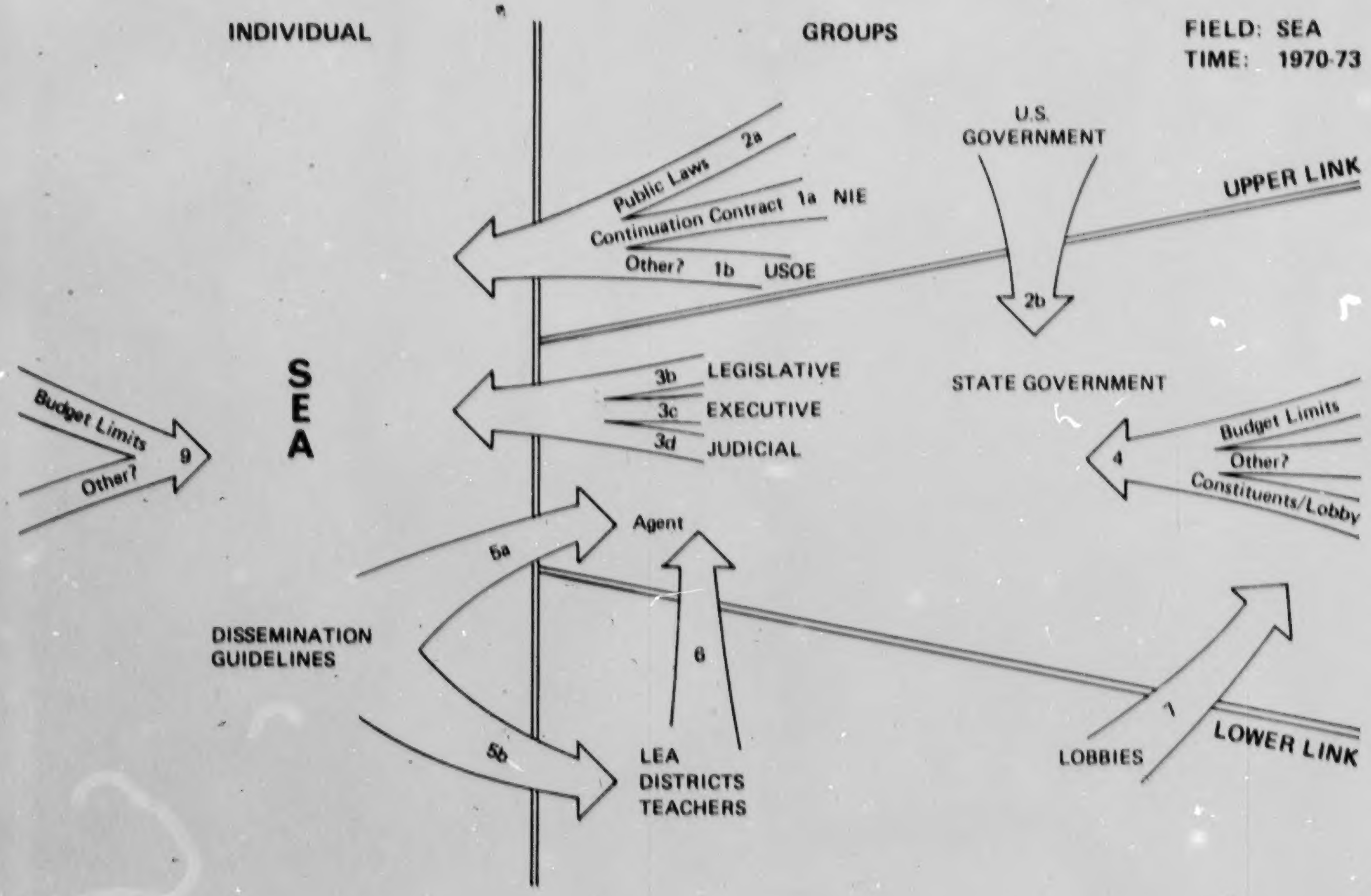

INDIVIDUAL
GROUPS
FIELD: SEA
TIME: 1970-73
U.S. GOVERNMENT
UPPER LINK
Public Laws
2a
Continuation Contract
1a
NIE
Other?
1b
USOE
2b
SEA
3b
LEGISLATIVE
3c
EXECUTIVE
3d
JUDICIAL
STATE GOVERNMENT
Budget Limits
Other?
Constituents/Lobby
4
Budget Limits
Other?
9
Agent
5a
DISSEMINATION GUIDELINES
6
5b
LEA
DISTRICTS
TEACHERS
LOBBIES
7
LOWER LINK

FIGURE IX-5 SEA INFLUENCES ON THE PSDP ENVIRONMENT

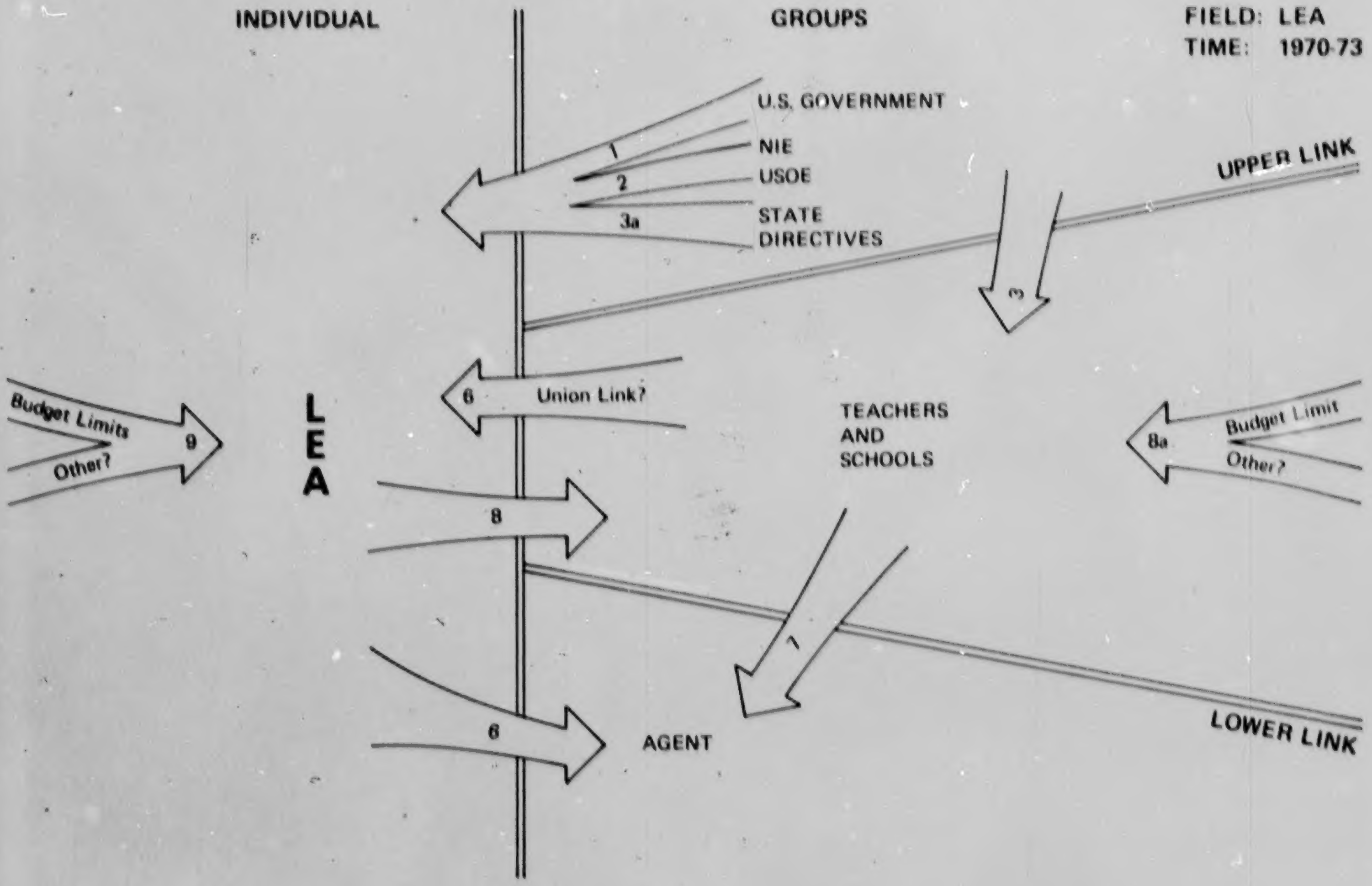

INDIVIDUAL
GROUPS
FIELD: LEA
TIME: 1970-73
U.S. GOVERNMENT
NIE
USOE
STATE DIRECTIVES
1
2
3a
UPPER LINK
3
Budget Limits
Other?
9
LEA
6
Union Link?
TEACHERS AND SCHOOLS
Budget Limit
Other?
8a
8
7
LOWER LINK
6
AGENT

FIGURE IX-6 LEA INFLUENCES ON THE PSDP ENVIRONMENT

Table IX-2

AN HISTORICAL OVERVIEW OF THE PILOT STATE DISSEMINATION PROGRAM

1965	ESEA is made into law (PL 89-10).
1969	The Commissioner of Education, James Allen, states that the first goal of USOE ought to be to "develop a nationwide strategy for maintaining a continuous process of improvement and relevance in American education."
Fall 1969	USOE sponsors a national meeting to examine information dissemination efforts within the states.
May 1, 1970	Responses to the RFP from USOE Office of Dissemination are due. RFP calls for three states to study the program under the name "Pilot Dissemination Program." Three states will receive $50,000 to $100,000 to set up the program; an outside agency will monitor, train the extension agents, and evaluate.
July 1, 1970	South Carolina is one of the three states chosen. Columbia University is to do the evaluation.
1970	The National Center for Education Commission (NCEC) within the USOE is established and becomes the focus for dissemination and the RFP. NCEC funds the project.
November 9, 1971	The First National Conference on Dissemination is sponsored by South Carolina in St. Louis, Missouri.
May 1972	The second conference is held in Columbia, South Carolina.
August 1972	NIE takes over NCEC's role.
February 1973	The third conference is sponsored by South Carolina in Maryland.
September 1972	Sieber and colleagues complete their evaluation.
1973	A variety of states are funded by USOE for their own programs.
1973	South Carolina completes the evaluation of its own program.

Table IX-3

SAMPLE WORKSHEET

TOPIC USOE; 1970; 4

REFERENCE SOURCE	POLICY NAME	LEGAL ANNOTATION	NEW DESCRIPTORS ?
Sieber et al., 1972 Vol. 2, Appendix	Request for Proposal Specifications for PSDP, 1970		

POLICY SOURCE			POLICY ENFORCEMENT			
Location	Other	Role	Location	Other	Role	Mechanisms
HEW USOE NCEC		U.S. Department of Education				

POLICY TARGET				
Location	Other	Role	Activities	Resources
State Departments of Education			Request states to propose a pilot program utilizing idea of the extension agent	Funds $100,000 per year Information Retrieval Systems; e.g., ERIC, CIJE

SUPERORDINATE POLICIES

COMMENTS see reverse

common to both the schematic and the worksheet, made evident the path on the diagram to which the policy corresponded.

The results of Round I established the basis for a sound analysis of the PSDP. Significant gaps in knowledge, which only interviews could fill, were sprinkled throughout the analytic structures (Figures IX-3 through IX-6). The obvious preparation for these interviews was the development of questions (see Table IX-4) to fill these gaps. For example, Lines 5a and 5b of Figure IX-5 suggested that a handbook or other form of guideline might have been generated for use in the program. Such would have been a source of policies for our study. This idea generated Question (2), Field III, in Table IX-4.

Round II: Postinterview Work

After interviews were completed, Round I efforts were reviewed and a large number of documents were cataloged and studied. As each step for Round II was completed, it either verified, modified, or amplified Round I results.

Step 1: Refining the Purpose of Analysis

Our purposes for this case study were modified slightly in response to field experiences. They became:

- To isolate those PSDP policies essential to the achievements of the state's explicit and implicit program goals.
- To document those policies and to understand the historical development of the policymaking process in terms of the actors, policies, resources, and activities.

Study of interview materials and of newly supplied literature revealed essentially little difference between the goals sought in practice and the goals stated in the 1970 proposal.

Table IX-4

QUESTIONS GENERATED FROM THE DIAGRAMS

Fields I and II: Focus on the U.S. Government and USOE

(1) Time development: What were the agencies that worked initially with the dissemination? How have those agencies and the NIE structure changed over time? (This will determine those people and groups concerned with dissemination who might have issued policies.)

(2) What are the PSDP guidelines for education dissemination? In particular, which are written specifically for the agent? Changes over time?

(3) To what extent do the NIE and other U.S. government agencies affect state education with regard to dissemination?

(4) Through which branches of U.S. government might policies come to influence the NIE, HEW, and USOE that may affect dissemination and the agent program? Which U.S. government agencies most closely influence education in the United States? (This will suggest places to look for major policies.)

Field III: Focus on the SEA

The agent himself resides within Field III, complying directly with SEA and LEA policies. Indirectly he feels the brunt of other policies stemming from federal as well as state government.

(1) What is SEA structure? (This will help clarify who sets the direct policies on the agent and who complies with the indirect or state policies.) Did it change over time?

(2) What guidelines have been established for the general dissemination program? What has been its history? (This will reveal the overt structure of the program.)

(3) What was the governing structure of the program, hierarchically above and below the agent? (This presents an idea of who would generate covert, implicit policy.)

(4) SEA structure would also give an idea of which state government branch would issue state educational policy enforceable on SEA. How does the state make educational policy? (Which agency, what parts of the code are applicable, and the like?)

(5) What requirements must the agent possess? (Must he be credentialed or part of Civil Service?) (This will lead to more policies.)

(6) Are there any court cases or attorney general opinions on educational dissemination? (This will lead to further state government influence.)

(7) Under what limitations, particularly economic, do the SEA and the dissemination program work? What percent of the state budget goes to higher education? (This is another type of policy that makes a program go or not go.)

(8) What percentage of the program budget came from USOE? From SEA? Changes over time?

Field IV: Focus on the LEA

(1) What types of LEA guidelines are of general concern to an outsider of the LEA, such as an extension agent? Is there enforcement as to the participation of agents in the classroom? How might the agent be aided or hindered in his chores by the LEAs? Changes over time?

(2) What is the structure of target schools? (This will determine who and through what mechanism policies might come.)

(3) Under what economic and physical limitations do the LEAs work with respect to the agent program? What percentage of teachers' budget is allocated to dissemination and knowledge acquisition via the agent?

(4) Which people in LEA interact with the SEA so that suggested SEA policies are implemented in the LEA? How do the federal and state agencies enforce suggestions that they make? (Suggestions often become policies, if forced.)

South Carolina had expected to design processes to accelerate the improvement of educational practices. This would be accomplished through providing access to and encouraging use of research information leading to the installation of tested innovations and programs within a definite framework operated by local school districts (Ellis, 1970).

The PSDP purposes in South Carolina embodied the basic USOE concepts: that educators should be aided in receiving and using information to make better decisions for the improvement of educational practices, and that a field agent should extend personal services in the dissemination effort. South Carolina, moreover, intended the program to influence local administrators, as well as teachers. A computer-based center was to provide the access to this information, which included, but was not limited to, the ERIC system.

Step 2: Refining the Focus and Field of Analysis

The focus of analysis shifted from the field agent to the PSDP team within the SEA; it became evident early in the interviewing process that policies emanating from the PSDP team dominated the policy scene.

The role of the field agent, though, had become much clearer following the interviews. South Carolina placed emphasis on the development of a locally based staff that would eventually handle the work of the field agent. Evidence of such existed in the statement of purpose of their initial proposal. There existed an intense sensitivity for the local governance structure of education, mostly because of the traditional emphasis on decentralization in the culture of that state. From the beginning, the PSOP staff knew that no activity in which the team engaged should ever be construed to mean undue SEA stress on local educators if the program was to be accepted in the state; therefore, they had to make the program a part of the LEA structure itself.

Over time, as clearer roles for all actors evolved, the decision was made to pull the agents into regional ("area") boundaries, while they trained and assisted the district representatives who replaced them. By the beginning of the third year, the field agent was gone; in effect, the position had been used to institutionalize a locally based dissemination structure. As expressed in the RFP, such was not the intent of USOE. The agent was not to be removed, but rather incorporated into the system if proved an asset in the dissemination process. When South Carolina found the idea of an agent advocating change to be unworkable, the concept needed to be clarified with USOE before funding. Indeed, discussions between USOE and South Carolina's Chief State School Officer (CSSO) along this line were profitable while the proposal was being written.

Step 3: Refining the Four Configurational Elements in Detail

The elements discovered in Round I, Step 3, are detailed below.

Configurational Element: Actors

- Dr. W. E. Ellis: Director of the Office of Research and Planning engaged in the five-year plan development. Dr. Ellis wrote the 1970 proposal. He had worked previously in USOE and in several South Carolina districts before becoming Program Administrator, along with his other duties. He chose the Chief Supervisor to handle the daily operations of the PSDP and with her wrote the continuation proposals and final report. He became Director of the Educational Products Center (EPC), which disseminates all information for the state education system.
- Dr. Diana Ashworth: Hired as Chief Supervisor to work under Dr. Ellis. Two years after program initiation, she became Director of the Office of Planning, her present position.

- Mr. Al Evans: Field agent for the Charleston district; a former school principal, knowledgeable of district affairs and personnel; was Chief Supervisor for the last six months of the program in 1972.
- Dr. Cyril Busbee: Superintendent (CSSO) in 1970; re-elected in 1974; an original supporter of the dissemination concept.
- Mr. Jesse Coles: Deputy Superintendent of Administration and Planning; Dr. Ellis' immediate superior.
- Ms. Eilene Folger: A retrieval specialist; part of the original team at the Center; held an M.A. degree.

Configurational Element: Resources

Funding is as follows:

- 1970-73: USOE
- 1973-75: State funds and district funds
- 1975- : USOE granted funds for capacity building.

Configurational Element: Policies

The formal policies are as follows:

- USOE ——→ SEA: RFP.
- Policies within U.S. government.
  - Public laws.
  - Busing, desegregation laws (1964) (Title VI of the Civil Rights Act). Assurance of compliance signed in 1971 by Mr. Jesse Coles.
- Policies within South Carolina state government: South Carolina Code of Laws, Vol. 5, Title 21, also Vol. 17.
- Policies within SEA.
  - A guide for operationalizing the 11 objectives (1970).
  - Proposal for "State Dissemination Grants Program" (1975).

  - Defined minimum program (1974).
  - Five-year plan (1970, updated yearly).
- Policies within program.
  - Initial proposal, continuation proposals, and final report.
  - Progress report objectives (A), (B), (D), (G), and (H).
  - Proposed organization and administration of EPC (1975).
  - Progress report objectives (E) and (F).
  - Memorandum agreement with USOE.
- Program → LEA: Progress report objectives (C).
- LEA → agent: Personnel policies manuals [see South Carolina School Board (SCSB) and Charleston manuals].
- LEA → teachers: Personnel policies manuals (see SCSB and Charleston manuals).
- SEA → teachers: Defined minimum program (1974).

The informal policies are as follows:

- Policies within SEA
  - A strong push was on to make everyone on every level accountable for some critical aspect of education in South Carolina (initial proposal, interview).
  - Previous activities had an opening for the dissemination program [Basic Education Data Services (BEDS), five-year plan, 11 objectives]. The concept was already existent; what could be better than this RFP to continue the idea? (observation).
  - The state was moving in 1970 toward a system of decision making based on problem-area priorities and needs assessment and a strong information service (observation).
- USOE → SEA and program
  - Contact with USOE had been established when the program was in its planning stages in USOE (interview).

  - The 1970 proposal and a memorandum agreement with USOE intended a test of the extension agent concept and a deep penetration of the dissemination concept into the daily routine of the educational process (interviews; initial proposal, 1970, p. 6).
  - USOE manager responded openly to changes in the basic RFP idea, since the whole concept was new and unproved; he gave full flexibility (interview).
- Policies within EPC
  - The EPC intended to shake up the SEA, that is, to motivate agencies to cooperate, reach out, and promote improvement and accountability and to motivate LEAs to reach out for ideas and share successes (interview).
  - The EPC's purpose was to extend and reshape dissemination. Communication between local, state, and national agencies concerning educational products has remained until now a loosely coordinated and ineffective process ("State Dissemination Grants Program," 1975, p. 1).
- Policies within PSDP
  - Initial viewpoint was that information is for a purpose (observation).
  - Director worked on the principle that informed decisions are likely to be better decisions (observation).
  - The central dissemination of information was viewed as the best use of limited resources available to all (observation).
  - At present, the greatest concern to the Director is the utilization of these products once they are delivered (observation).
  - The information delivered must be directly useful and on time (interview).
  - Each retrieval specialist and field agent was required to have master's degree. The Chief Supervisor was to have a doctorate (initial proposal, 1970, pp. 10-11).

- Policies within the PSDP
  - The broad objectives of the program were to facilitate dissemination, applications, and utilization of educational research; to encourage improvement and constructive change in the educational process; to develop and operate an information retrieval and dissemination center; and to develop and operate a field component to assist the utilization of educational information (Ashworth et al., 1972, p. 11).
  - Three times it was mentioned in the continuation proposal that the PSDP intended the SEA to assume leadership in the development and operation of an information service to assist educational managers and practitioners (second-year proposal).
  - The continuation proposal described well in advance what was going to happen; the proposal made explicit the intent and steps needed for strong institutionalization, particularly of how the program was to become imbedded in LEA structure (second-year proposal, p. 32).
  - The Director of Research and Planning remained well on top of PSDP affairs. He was, in essence, the direct link to higher SEA management and the direct route in the flow of life sources from the CSSO himself (observation).
  - The Deputy Superintendent, immediate superior of the Director of Research and Planning, remained close to the program and supported it. That the program became entrenched so strongly in SEA affairs after 1970 was largely because of his efforts (interviews).
- Program ——► agent
  - Emphasis was on incentive rather than restriction. The individual was made to feel a part of the enterprise. Formative evaluation was well-programmed into the communication links within the system (interview, observation).
  - The concept of the agricultural extension agent was set aside when it was realized that information on new classroom techniques was not like information on new ways to grow bigger and better potatoes; the potatoes would grow bigger and better, but the

education of students was dependent on internal factors of the classroom rather than controllable factors like climate (interview).

  - Agents were communication specialists rather than information specialists (Ashworth et al., 1972).
  - The agent must not anticipate or interpret what is "good" for the client (observation, interview).
  - The communication specialist is not a "change agent" or Guba's "diffusion agent." He provides no solutions to operating problems. First he attempts a diagnosis of the problem, to perceive the real problem. Havelock's "catalyst" or "process helper" models would be more attuned to South Carolina's case (Ashworth et al., 1972, p. 40; Guba and Clark, 1974; and Havelock, 1971).
  - "The primary purpose of Research Data supplied to you is not to effect change but rather to increase awareness of problem areas and seek alternatives for their resolution" [brochure advertising the Research Information Unit (RIU) in its second year; see Ellis, 1973, appendix].

- LEA → agent
  - The agent's role in the district was adjusted to meld rather than compete with the entrenched information specialists (interview).
  - Sixty-three LEAs chose representatives to facilitate communications between their districts and the RIU ("Quarterly Progress Report," January-March 1972).

Configurational Element: Activities

- PSDP
  - The SEA administration was sensitive to the differences in intent between their ideas and USOE's ideas concerning the project. The CSSO consequently spoke with USOE on the matter and received approval to proceed as they wished (interview).

- The Director defined policies as tools to use in defining his "areas of freedom"; it was a philosophy that did not restrict his movements (interview).
- Enthusiasm and commitment from the staff were evident from the beginning (Ashworth et al., 1972, p. 24).
- ESEA Title IV, Section 402, was initially to be used for the development of a "data collection unit" (initial proposal, p. 13).
- There was good communication and good, strong leadership at the highest level of authority (interview).
- The Chief Supervisor had captured the confidence and respect of all participants; she provided the human balance to the program. The Director was the authoritarian SEA official; the Supervisor was the calm, easy-to-work-with newcomer to the SEA. It was the balance of the two that made the SEA stable (observation).
- The PSDP must have a stable, capable central staff. Feedback from the field agent maintained enthusiasm within the staff (interview).
- The retrieval specialists were well-educated and held master's degrees, a policy that eventually moved the task out of the clerical mode (interview).
- Processing priority at the Retrieval Center was given to the field agents. Follow-up and on-time processing were considered as most important (interview).
- Quarterly progress reports kept information flowing. Objectives were universal enough to continue as objectives throughout the program, but specific enough to be useful (observation).
- The Director made politically key use of the service to promote it: he prepared a package on British infants schools that made the CSSO the best informed participant at an English convention; he prepared a package on all information about the South Carolina educational system for CSSO's encounter with the newly elected state governor (interview); he made clear ties with legislature and staff to help supply their information needs; he developed the idea of sharply distinguishing help to the client and influence on the client's decision; and he provided

service to State Board committees drawing up five-year plans (interview).

- The Director used the Library of Congress, convinced ERIC Central to add South Carolina documents, and used every structure engaged in dissemination. Appropriate agencies were catalyzed into acting (interview).
- June 1970: The Office of Research and Planning was split into two groups with the Office of Research incorporating three new groups: research, survey, and the RIU in which PSDP was assigned.
- January 1971: Requests in this one month equaled the total from July to December 1970 (Ashworth et al., 1972, p. 28).
- July 1971: The Office of Research was reorganized into three sections: research/statistics, survey/evaluation, and research information, of which RIU was a component (Ashworth et al., 1972, p. 13).
- By August 1971, 195 requests had been submitted by State Department of Education personnel (second-year proposal, p. 10).
- A catalog was prepared in Fall 1971 of all requests processed since July 1970 (second-year proposal, p. 21).
- By December 1971, 232 requests had come from Rock Hill and 239 requests from State Department of Education personnel (Ashworth et al., 1972, pp. 47 and 17).
- By March 31, 1972, 443 requests had been received from nonpilot districts, for an overall total of 1560 ("Quarterly Progress Report," 1972, p. 2).
- The dissemination cycle period in December 1972 was down one-half from five months before (Ashworth et al., 1972, p. 31).
- By June 1973, 3030 requests had been filed for target and nontarget districts (Ellis, 1973).
- The RIU had developed its own identity within the Department of Education as a result of its ability to deliver a usable product in a reasonable period of time. The Department's commitment to the utilization of education research information as a basis for

planning and development had further integrated work into the total (Ashworth et al., 1972, p. 18).

  - The Director's final report was packed with information on the success of the program. He quoted Dr. Sieber's confirmation of this, and then described the expansion of research and dissemination services and their extension into nontarget areas (Ellis, 1973, p. 18).
  - The Query program was updated to cut search time substantially (second-year proposal, p. 19).
  - Two articles about the RIU appeared in South Carolina Schools magazine as advertising ("Quarterly Progress Report," January-March 1972).
  - Recommendations for future PSDP programs appeared in the final report (Ellis, 1973, p. 3).

- SEA
  - In 1970 SEA had: basic staff and commitment to information services, but no well-established resources in BEDS; goals embodied in a five-year plan; and knowledge of exemplary practices in some districts that they were willing to share (observation).
  - South Carolina came alive in 1965; a new CSSO came aboard. Ninety percent of the 1960 vintage were let go; by 1970 CSSO was running smoothly (interview).
  - The CSSO maintained strong communication with government, superintendents, and legislators (interview).
  - The State Department of Education was not a keeper of district information. Districts were left to themselves. SEA's function was to serve the districts (interview).
- Districts (LEAs)
  - Rapid major changes were occurring in 1970. The largest were Civil Rights and busing problems--"separate but equal schools." People did not want change. Rock Hill was voted a large bond issue, which gave it a lot of new money. A new Superintendent came in, consolidating two old districts; he wanted cautious change. Use of the term "change agent" would have scuttled the entire program (interview).

- Groundwork was laid before the agent was introduced. Good working relations were already established (interview).
- Commitment from the districts was already established before the project was funded (interview).
- Field agents were appointed, at the suggestion of district office, as district staff (interview).
- The SEA allowed the Superintendent to develop the role of the agent. This developed a trust that SEA's intention was not to dominate, but to serve. The role was refined, not defined (interview).
- Superintendents were helpful; they aided the agents and advertised the system (interview).
- Rock Hill had a 28% black population, which was increasing by 4% every ten years, according to the 1970 census figures (Ashworth et al., 1972, p. 36).
- After funding was continued in January 1972, the communication specialists shifted emphasis from their target districts to more expansive areas. They then trained the district representatives who took their place (second-year proposal, p. 32).

- Educational Products Center (EPC) (1974 descendant of PSDP)
  - EPC has three roles: linkage agent role, information resource pool, and product center.
  - The EPC attempts to direct requestors to the agency or district that is the source of information (interview).
  - EPC's major value is in preventing the state from going in the wrong direction rather than in a so-called "right" direction (interview).
  - The EPC used their Survey of School Statistics as an incentive to get the LEAs accustomed to using their services (interview).
  - The EPC intends: to tap and blend existing resources and services from many agencies; to establish a cycle of dissemination, resource assistance, and utilization in response to user needs; and to use audiovisual and print media from various sources to portray specific concepts ("State Dissemination Grants Program," 1975, p. 18).

- Agents
  - The agents always informed superintendents when and where they were in the district and what they were doing (interview).
  - The agents came to many briefings at the SEA to stay informed. In this way a strong information link was maintained between district superintendents and the SEA (interview).
  - The Charleston agent established an advisory committee of educators in the district to help him screen requests, set priorities, and assess needs (Ashworth et al., 1972, p. 58).
  - The agents were cautious to provide alternatives, not answers, for the educator (interview).

Step 4: Refining the Maps of the PSDP Environment and Its Governance Structure

Round I maps were found effective in describing the governance structure. A history (Table IX-5) was developed to help clarify time changes.

Round III: Final Analysis and Write-Up (Step 5 of the Framework)

Section V, which follows, is an example of the final product that might result from use of the analytic framework. It is written with the intention of supplying answers to policymakers who wish to know:

- A short history of the program in South Carolina.
- Whether or not the state reached the goals it set for itself.
- Which policies played key roles in aiding or hindering achievement of these goals.
- How closely the original RFP approximated those policies that did, in fact, aid achievement of the goals.
- The present state of information dissemination in the state.

Section V is written to emphasize the detachment that is possible from the terminology and the structure of the analytic framework.

Table IX-5

HISTORY OF THE PILOT STATE DISSEMINATION PROGRAM IN SOUTH CAROLINA

1964	Federal busing and desegregation laws enacted.
1965	CSSO elected.
1967	State School Board statement of educational philosophy concerning the five-year plan.
1968	Needs assessment study completed; BEDS well into development.
Early 1970	Rock Hill district in great change; problems over desegregation; district consolidated from two smaller districts; new bond issue voted in; new superintendent elected; people tired of so much movement.
May 1970	Five-year plan adopted; initial proposal written.
June 1970	Office of Research and Planning split; RIU made component of Office of Research.
July 1970	Project funded; pilot district Charleston and Rock Hill; hiring of personnel began.
September 1970	A guide written by Director of PSDP for operationalizing the 11 objectives of the five-year plan.
Late 1970	Changeover to Query Retrieval Software Program.
July 1971	Office of Research became three groups; RIU within Research Information Section.
Fall 1971	Catalog of requests received to date was prepared.
November 1971	Continuation proposal was written.
January 1972	Two articles about RIU appeared in magazines; RIU made available to Winthrop College.
July 1972	Area specialists being developed; original agents were now serving many districts (districts appointed representatives).
September 1972	Columbia University completed evaluation.
Late 1972	Chief Supervisor became Director of Planning Office in SEA; one of the field agents replaced her.
January 1973	Continuation proposal written.
July 1973	Federal funding ended; funds from SEA continued project; RIU moved into Office of Planning and Dissemination; name changed to Planning Resources Section; 72 of 93 districts participated; final report written.
June 1974	Office of Planning and Dissemination split; Planning Resources Section changed name to Educational Products Center (EPC).
November 1974	CSSO reelected.
1974	Defined Minimum Standards Program was updated and adopted.
July 1975	State Dissemination Grants Program funded by USOE.

V SUBSTANTIVE RESULTS AND CONCLUSIONS: A BRIEF ANALYSIS OF THE ROLE OF POLICY IN THE SOUTH CAROLINA PILOT STATE DISSEMINATION PROGRAM (PSDP)

History of the PSDP

In responding to the USOE's 1970 RFP, the Deputy Superintendent and the Director of Research and Planning anchored South Carolina's proposal to a well-organized, strongly institutionalized and maturing drive for innovation and change in the state educational system. As early as 1967, the South Carolina State Board of Education issued a statement of educational philosophy,* which formulated the concept of a five-year plan for educational improvement. The concept enlivened the new administration and kept ideas flowing over the next three years. Such ideas led first to a Needs Assessment Study in 1968 and then to 11 well-developed, specific, and attainable objectives adopted by the State Board in 1970 (five-year plan, May 8, 1970). The plan sought maximum accountability on all levels of educational operations (initial proposal, 1970, p. 4). A computerized information service called the Basic Education Data Services (BEDS) was to be developed for the plan, using ESEA Title IV. BEDS essentially was a strong administration commitment to acquiring the fundamental information necessary for effective administrative decision making and sound, innovative educational programs.

By the end of May 1970 when the state's PSDP proposal went to USOE, the CSSO had established five years of rapport with state legislators, the executive branch of government, his staff, and local district superintendents. Functional goals were solidly embodied in the five-year plan that had been accepted and approved earlier that month by the State Board of Education. Expectations were high within the SEA for its successful implementation.

---

*See "South Carolina's Five Year Plan for Continuous Upgrading of Education," published and updated every year since 1970.

The RFP outlining the PSDP arrived amid these changes, but was not unanticipated. The Director of Planning and Research, knowing of the plans in preparation at USOE and realizing the potential value of the program to existing state plans, prepared its way.

Not long after July 1970, the Chief Supervisor, a teacher holding a doctorate degree, settled into her new job; the two pilot districts appointed their respective agents, and the retrieval personnel established the new Research Information Unit (RIU). The Director of Planning and Research maintained authority over the program throughout the three-year period but most particularly during the first few months while the Chief Supervisor worked into her new position. As the program matured, the Director's principal function was to integrate the program into the normal administrative and political activities of the state educational system. He backed away from full-time participation in the program, leaving the Chief Supervisor with daily decision making. The latter maintained momentum, enthusiasm, and the needed daily management.

A break came in January 1971, when the number of requests received that month was equal to that received the previous July through December (Ashworth et al., 1972, p. 28). However, the limited number of retrieval personnel and the inefficiency of the Query computer search technique limited the responses to about 80 per month. Additional personnel and alterations in Query had, by June 1971, cut total processing time by half (continuation proposal, 1971, p. 21; Ashworth et al., 1972, p. 31).

Good communications maintained the stability of the program. Quarterly progress reports, monthly staff meetings, and feedback from the field agents kept problems few and fostered feelings of participation and the importance of one's position within the entire enterprise. Formative evaluation was well-programmed into the system.

By the end of the first 18 months, the PSDP was well-entrenched in daily educational operations, both within the SEA and within the two pilot districts. The superintendents had accepted the field agents as members of their staffs. The agents themselves had established a personalized approach and were accepted by both the local school administrators and the teachers.

The continuation proposal of November 1971 spoke well of the linkage agent concept as an effective mechanism for expanding beyond the target districts. For example, plans were made to extend RIU's services to teacher training institutions, to acquaint future educational practitioners with the dissemination process (continuation proposal, 1971, p. 25). Of most importance, however, were plans to integrate and formalize the dissemination process within the normal, routine activities of all the local districts. Beginning in January 1972, each target district would designate an individual to replace the PSDP communication specialist. The specialist would transfer his activities from his original pilot district to a larger section of the state that included a number of new, interested districts (continuation proposal, 1971, p. 32). By June 1972, both the pilot and the nonpilot districts would receive the same level of attention in training and assistance from these new area specialists. The intent was to build capacity and extend the dissemination process to others. In the long run, the area communication specialist would disappear entirely as a middleman of no consequence, the result of a fully functioning direct communication link between the RIU and the district representatives.

The program continued as these plans indicated. In June the Chief Supervisor advanced to become Director of Planning the SEA, and one of the original two agents, an area communication specialist, took her place. The progress reports announced 443 requests received from the nonpilot districts through March 31, a total of 1560 overall. Sixty-three districts had designated their representatives, and a meeting to strengthen the network was held on March 1, 1972 ("Quarterly Progress Report," March 1972, p. 2).

A year later, 70 of the 94 school districts used district representatives routinely, and 5 others had full- or part-time field agents. Five additional district representatives had been designated to serve the School for the Deaf and Blind, Youth Services, Department of Mental Retardation, and similar organizations ("Quarterly Progress Report," March 1973, p. 1). By March 31, 1973, 2833 requests had been received or were in process; in the preceding quarter, 364 requests produced 247 microfiche and 125 journal articles.

With little doubt, the program had found a permanent position within the state educational system when the federal portion of the PSDP was discontinued in July 1973. The Research Information Unit changed its name and transferred into the Office of Planning and Dissemination.

The new Planning Resources Unit, as it was called, continued expansion to activities other than R&D dissemination. Emphasis was placed on usable products, such as the official South Carolina School Directory, 1974-75 and the Survey of School Statistics, which would provide additional incentive for the LEAs to use the unit's resources.

An idea growing that year realized the opportunities in information retrieval that were abroad in other government agencies. The central dissemination of information still remained a vital concern and was still viewed as the best use of limited resources. However, agencies existed throughout the state government, within and without the educational system, that could provide an extensive idea base and a plethora of services to LEAs if only a central group would advertise and promote these ideas and services from a central location. The group, which became the present Educational Products Center (EPC) in July 1974, continued the old linkage role, but formed an information resources pool and generated new, usable products derived from the knowledge flow and utilization of which the staff had so long been a part. Requesters were directed to existing agencies that already were the sources of certain materials ("State Dissemination Grants Program," 1975, p. 18). The EPC, in essence, intended to refine the boundary definitions between agencies so that it would not overlap responsibilities but, rather, would promote cooperation and accountability in the development and dissemination of services to the LEAs. The goal was a potent form of incentive and catalysis; that is, let the agencies produce the products they wish, but let them work hard to prevent boundary encroachment by the EPC on products that are needed, but not yet produced, by the SEA and LEAs.

The Achievement of PSDP Goals

Several major differences in orientation toward the PSDP project between USOE and South Carolina were expressed during proposal writing. For example, South Carolina wanted full responsibility to manage the project, to ensure that any changes that were required for more consistent operation within already existing state activities--even if inconsistent with USOE ideas--would rest with South Carolina. Furthermore, in their dissemination efforts, the staff wanted to serve LEA, SEA, and other government officials as well as local educational practitioners. This latter intent was based on the hope that such services to those with institutional power would imbed the linkage concept more deeply into the existing educational governance structure.

An even more important difference existed. From the start, South Carolina placed emphasis on the development of a locally based staff that would eventually handle the work of the field agent. There was intense sensitivity relative to the local governance structure of education, mostly because of the traditional emphasis on decentralization in the state's culture. Even though the continuation proposal (1972) was emphatic, mentioning three times that the PSDP intended the SEA to assume leadership in the development and operation of an information service to assist educational managers and practitioners, it stressed an extremely strong local component. From the beginning, the PSDP Director knew that no activity in which the team engaged must ever be construed to mean undue SEA stress on local educators, if the program was to be accepted in the state. In fact, the agent was to be clearly distinct from the SEA, being chosen from and paid by the district he served. The staff encouraged teachers to define their own problems and to seek information as they needed it.

The communication specialist--that is, the extension agent--was not a change agent or, as Guba called him, a "diffusion agent" (Guba and Clark, 1974). He provided no solutions to operating problems, but acted rather as a "catalyst" and "process helper," in Havelock's terms (Havelock, 1971; Ashworth et al., 1972, p. 40; Ellis, 1973, appendix). The direct personal relations between agents and teachers were intended only to clarify definition of problem needs as seen by the teacher; selection from alternative approaches that were suggested by retrieved materials became the responsibility of the client, not the agent.

The foregoing does not suggest that change and modernization of educational techniques were not considered important; to the contrary, this was the theme of the five-year plan. On the surface, perhaps, an emphasis such as this seems in conflict with USOE's original idea, since USOE's thrust was toward service to local educators, not administration personnel, toward a test of the agricultural extension agent concept applied to education, and toward an advocacy role for change. The USOE manager, however, approved these ideas for two reasons: first, because the linkage agent concept was commonly regarded as new and unproved--one that would initially need full, flexible rein--and, second, because the RFP could be widely interpreted to accept these ideas. The decision put USOE in a favorable light with state officials and assured a cordial working relationship between the two groups.

The 1970 proposal and a memorandum of agreement with the USOE intended a test of a modified form of the extension agent concept suggested in the RFP and a deep penetration of the dissemination concept into the daily routine of the educational process, as noted earlier (initial proposal, 1970, p. 6).

From the standpoint of the PSDP staff, both tasks were accomplished adequately. The final report was packed with a rather convincing argument submitting substantial data to prove the point. It particularly emphasized the program's expansion and growth into nontarget areas.

The test of the extension agent concept was successful because of the personal touch afforded by the agent, but also because it was anchored into an organized, creative team effort. The Chief Supervisor who set the program on its feet had captured the confidence and respect of all participants. She provided the human balance to the Director's authoritarian and "political" drive. The retrieval specialists, all of whom had master's degrees, moved their task out of the clerical mode by providing well-edited, packaged responses to requests. For example, in Fall 1971, they prepared a catalog of all requests that had been processed since July 1970. The instrument provided not only good advertising, but also cut down on repetition.

The agents were required to have master's degrees and experience in educational administration (initial proposal, 1970, pp. 10-11). They provided a strong information link between LEA superintendents and the SEA. This link and acceptance of agents by the local schools maintained for them a significant position within the local educational process.

The strengths of the dissemination team were complemented by an insightful political Director. He was the direct link to all higher management and was a source of information for the CSSO himself. He made politically key use of the RIU services in a number of ways, to promote and to secure the dissemination concept. Within the first 18 months of the program, more than 239 requests had come from State Department of Education personnel, compared with 232 from the Rock Hill district (Ashworth et al., 1972, p. 17). The Director prepared a package on British infants schools for the CSSO's participation at an English convention; he established clear ties with the state legislature and their staff to help supply their information needs; and he ensured aid to the State Board committees drawing up the five-year plan. For advertising, he contacted both the Library of Congress and ERIC Central so they might add South Carolina documents to their systems. The Deputy Superintendent, though not on the staff payroll, made substantial contributions to the overall effort. He and the Director were the keys to the continuation of the dissemination concept in further SEA plans.

No surprise was expressed when funding responsibility was transferred smoothly from the federal grant to the SEA in June 1973. The PSDP program, minus the extension agent, had become woven into the fabric of daily activity. It was not that establishing agents was considered a useless endeavor. Instead, the idea had been used as a tool for mobilizing and training local educational personnel to continue the dissemination process on a more solid and less mobile basis. The present Educational Products

Center is a descendant of that original program and continues its information dissemination efforts as it always has, but now maintains the development and dissemination of useful educational products as well.

Recommendations pertinent to information dissemination were presented in South Carolina's final report (Ellis, 1973, p. 3). They stem from an active struggle with the concepts of dissemination over the previous three years and are worthy of paraphrase here for any future work along these lines:

- The information dissemination concept should be viewed as a "partnership" of the total educational community and must embody the spirit of improving education throughout the state.
- An information center should:
  - Provide immediate information to aid school districts in needs assessment and decision making.
  - Be designed to encourage, assist, and facilitate work of educators through designated state and local agents to provide for systematic, comprehensive educational change.
- The role of the educational extension agent is a helping one in providing alternative approaches in response to specified needs. This is a more passive and realistic approach to the concept of change. It is service-oriented.

Conclusions

The most evident reason for the successful test of the modified form of the extension agent concept was the emphasis placed on local control of the dissemination process. The decision was based on an awareness of South Carolina's traditionally unfavorable reaction to pressure from a central authority, an insight that USOE would not necessarily have had. The decision required a change in the application of the extension agent concept as it appeared in literature of the day.

Evident reasons also exist for the successful continuation of the program beyond closure of 1973 federal funding. Principally, the SEA was committed to the belief that effective decision making and sound innovation in education should be grounded on good information.

The Future of Information Dissemination in South Carolina

The Educational Products Center stands firm for the next years as a respected entity within the educational system. The Center serves effectively as a statewide linkage system between local school districts and resources available through the Department of Education, other school districts, and other informational sources. USOE has supported the continued growth of this program with funds from the July 1975 State Dissemination Grants Program. The proposal for this latter funding, which appeared in April 1975, outlined in detail the activities, plan of work, and time schedule for the next year. Included in that paper were developmental phases for five-year dissemination plans that are meant eventually to link multiple states in a national dissemination network.

Annex A

CRITICAL POLICIES AFFECTING THE ACCOMPLISHMENT OF GOALS IN THE SOUTH CAROLINA PSDP

Annex A

CRITICAL POLICIES AFFECTING THE ACCOMPLISHMENT OF GOALS IN THE SOUTH CAROLINA PSDP

Explicit Goals of PSDP

- To provide access to and encourage utilization of research information.
- To disseminate information in a usable form, leading to installation of tested innovations and programs.
- To test the extension agent as a temporary device for building a framework operated by local school districts.

Policies Leading to Achievement of Explicit Goals

- Choice of staff members led to a skilled, dedicated team.
- Notion of policies as delineating "areas of freedom" rather than as "restrictions on motion" led to many new ideas.
- Emphasis on innovation and change was designed so that it could not be construed as undue pressure from a centralized authority (namely, the SEA). The agent was to provide alternative approaches and allow teachers to choose from among them in solving their problems.
- Solution to the cultural bias away from centralized authority meant the active participation of the LEA in the process of dissemination to the point of requiring a locally governed framework.

Implicit Goal for the PSDP

Continuation of funding beyond 1973.

Policies Leading to Achievement of Implicit Goal

- Secure foothold for this program within the SEA plans.

- High degree of committment and participation by higher SEA officials relative to dissemination.
- High degree of commitment by local districts.
- Choice of Director experienced in political matters and SEA/USOE activities.
- High advertising profile.

Annex B

CRITERIA FOR FUNDING AS SPECIFIED BY USOE'S RFP

Annex B

CRITERIA FOR FUNDING AS SPECIFIED BY USOE'S RFP[*]

Technical Adequacy of the Plan of Operation

- Evidence of appropriateness to conditions within the state.
- Explicit rationale for selecting target districts.
- Specifications for program staff.
- Relative importance given to various phases and activities.
- Appropriate timing and sequencing of events.
- Appropriate strategies in soliciting requests and in developing local support.
- Appropriate procedures for measuring information needs and obtaining client feedback.

Capability of SEA

- Inventory of staff talents and other resources.
- Current SEA activities related to LEA problem solving.
- Explicit SEA policy on dissemination.
- Existing state legislation or endorsements for SEA acceptance of the proposed role.

Commitment of SEA

- A plan to incorporate these services into the continuing operation of the agency, both administratively and financially.

---

[*] South Carolina was clearly aided in its bid for program continuation beyond 1973 by the technical adequacy of its plan of operation and its awareness of the local cultural need for cautious change without undue pressure from a central authority.

- Allocation of current staff and other resources to project.
- Position of the program Director in the SEA hierarchy.

Capabilities of Key Program Staff

- Education, experience, and other qualifications of program Director (to be named in the proposal).
- Competencies and experience levels of other personnel.
- Ability to operate in a "service" or assistance capacity.
- Demonstrated knowledge of school problems.

Economic Efficiency

- Proposed dollar allocation (cost versus likely benefits).
- Total cost as compared with alternative proposals to provide equal or comparable services.

Annex C

TAXONOMY OF POLICIES CONSIDERED SIGNIFICANT IN THE STUDY OF THE SOUTH CAROLINA PILOT STATE DISSEMINATION PROGRAM

Annex C

TAXONOMY OF POLICIES CONSIDERED SIGNIFICANT IN THE STUDY OF THE SOUTH CAROLINA PILOT STATE DISSEMINATION PROGRAM

Policy Name	Reference Citation	Policy Type and Generation Process	Source	Explanation of Significance
South Carolina state contracts for Pilot State Dissemination Program	USOE Contract No. OEC-0-70-5050-508/BR No. 0-0772	Contract (Contract) (RFP)	Federal-state (Administrative-administrative) (USOE and SBE)	The RFP generated the idea for the program. The contracts provided funding, authority, and goals of the program from inception (1970) of the program until 1973.
Quarterly progress reports	South Carolina Educational Products Center Archives	Administrative Law (Discretionary Act)	State (Administrative) (PSDP)	These reports were produced quarterly from January 1970 to December 1973. They document the administrative and operational policies of the PSDP program.
Charleston County, South Carolina, Public Schools Personnel Policy Manuals	Charleston County Public Schools, District Office, Policy Archives	Administrative Law (Guidelines)	Local (Administrative) (LBE)	Example of a district policy. Illustrates the local-level policy environments of which agents must be aware.
South Carolina five-year plan for continuous upgrading of education	South Carolina SDE Policy Archives	Administrative Law	State (Administrative) (SDE)	Provided insight into the overall state milieu of South Carolina that also gave rise to PSDP.

BIBLIOGRAPHY

Ashworth, D. J., et al., Long-Range Plan for Educational Improvement, State Department of Education, Columbia, South Carolina (1974).

Ashworth, D. J., et al., "South Carolina Pilot Program for Information Dissemination, A Narrative Report, July 1970 to December 1971," State Department of Education, Columbia, South Carolina, ERIC: ED 063943 (1972).

Berman, P., and M. W. McLaughlin, "Federal Programs Supporting Educational Change," Vol. IV, Findings in Review, Report R-1589/4-HEW, Rand Corporation, Santa Monica, California (April 1975).

Churchill, S., "Modelling a National Educational R&D System: A Conceptual Framework," Draft Report for National Institute of Education (January 1974).

Colin, M., et al., Developing Training Materials for Educational Extension Services Personnel, Stanford University and Systems Development Corporation, Stanford and Santa Monica, California (April 30, 1973).

Colin, M., et al., "Final Technical Report: Developing a Sensing Network for Information Needs in Education," Institute for Communication Research, Stanford University (September 1972).

"Criteria for Implementing a Defined Minimum Program for South Carolina School Districts," prepared by a State Department of Education Planning Committee, H. G. Hollingsworth, Jr., chairman, Columbia, South Carolina; effective date of implementation, July 1, 1974.

Dorfman, W., "Projects, Products, and Services of the National Center for Educational Statistics, 1973," Department of Health, Education, and Welfare, Washington, D.C. (1973).

Education Commission of the United States, 1973 State Education Legislation and Activity: General Governance and Administration, Department of Research and Information Services, Washington, D.C. (April 1974).

Education Products Center, "Proposed Organization and Administration of the Education Products Center," draft material, State Department of Education, Columbia, South Carolina (June 27, 1975).

Ellis, W. E., "South Carolina Pilot Program for Information Dissemination," initial proposal to U.S. Office of Education, Research Utilization branch, Office of Information Dissemination; prepared by Office of Research and Planning, State Department of Education, Columbia, South Carolina (May 1970).

__________, second-year proposal, Contract No. OEC-0-70-5050-508/BR No. 0-0772, December 26, 1971 to December 31, 1972.

__________, third-year proposal, January-June 1973.

__________, Final Report (June 15, 1973).

Ellis, W. E., and D. J. Ashworth, "Quarterly Progress Report," for July-October 1970 (November 4, 1970).

__________, "Quarterly Progress Report," for January-March 1972 (April 20, 1972).

__________, "Quarterly Progress Report," for January-March 1973.

__________, "Quarterly Progress Report," for July-December 1973.

Guba, E. G., and D. L. Clark, "The Configurational Perspective: A Challenge to the Systems View of Educational Knowledge Production and Utilization," Indiana University (1974).

"A Guide for Operationalizing the Eleven Educational Objectives for South Carolina Public Schools," prepared by Office of Planning, State Department of Education, Columbia, South Carolina (September 8, 1970).

Harris, S. P., State Departments of Education, State Boards of Education, and Chief State School Officers, Publication No. OE 73-07400, Department of Health, Education, and Welfare, Washington, D.C. (1973).

Havelock, R. G., "Training for Change Agents: A Guide to the Design of Training Programs in Education and Other Fields," Ann Arbor Institute for Social Research, Michigan University (1971).

Hug, W., Strategies for Change in Information Programs, Auburn University (R. R. Bowker, New York, New York, 1974).

Kirst, M., The Politics of Education at the Local, State, and Federal Levels (McCutchan Publications, Berkeley, California, 1970).

McKinley, A., "Critical Notions of Model Building in Social Policy Analysis," draft material, Stanford Research Institute, Menlo Park, California (April 1975).

Ovsiew, L., et al., Change Capacity in the School District, Research for Better Schools, Inc. (September 1974).

Paisley, W. J., et al., "Design for an Evaluation of Multiple Variations of Educational Linkage Programs," First Interim Report, Contract No. NE-CO-00-3-0299, National Institute for Education (November 1973).

"Personnel Policies Manual 1974-75," prepared by Charleston County Public Schools, Charleston, South Carolina.

Policy Manuals, South Carolina School Boards Association, Columbia, South Carolina.

Proceedings: Third National Dissemination Conference, sponsored by South Carolina State Department of Education, Chevy Chase, Maryland, February 22-23, 1973.

Rodgers, E. M., and F. F. Shoemaker, The Communication of Innovation: A Cross-Cultural Approach (The Free Press, New York, New York, 1971).

School Districts of South Carolina: Organization and Administration, State Department of Education, Columbia, South Carolina (July 1974).

"School Law in South Carolina: A Research Guide for Superintendents," State Department of Education, Columbia, South Carolina (October 1974).

Sieber, L., et al., The Use of Educational Knowledge: Evaluation of the Pilot State Dissemination Program, Vols. I and II, Bureau of Applied Social Research, Columbia University, ERIC: 065739, 065740 (September 1972).

South Carolina School Directory, 1974-75, Education Products Center, Columbia, South Carolina.

"South Carolina's Five Year Plan for Continuous Upgrading of Education," Objectives in 1975, State Board of Education, Columbia, South Carolina (1975).

"State Dissemination Grants Program," project proposal, submitted to the National Institute of Education by South Carolina Department of Education, April 25, 1975.

U.S. Government Manual, Federal Register Office, Washington, D.C. (1969/70, 1971/72, 1972/73, 1973/74, 1974/75).

Wanger, J., Educational Information Sources, Systems Development Corporation, Falls Church, Virginia (1971).

Case Study X

AN APPROACH TO MONITORING THE ROLE OF GOVERNMENT POLICIES FOR SELECTION AND EVALUATION OF NEW INSTRUCTIONAL MATERIALS

by

Victor Walling
and
Myra Hodgson

CONTENTS

LIST OF ILLUSTRATIONS. . . . . X-v

LIST OF TABLES . . . . X-vii

I EXEMPLARY FINDINGS. X-1

The Key Agents. X-1
The Complexity of the Process X-2
Policies as Sources of Information. X-6

II INTRODUCTION. X-9

The Analytic Approach: Using Formal Policy to Explore Structure and Process X-10
Origins of the Data Used. X-11
The Role of Policy in the Division of Responsibility. . . . X-11

III THE FUNDAMENTAL WAYS THAT POLICIES STRUCTURE MAIN-LINE INSTRUCTIONAL MATERIALS SELECTION AND EVALUATION. X-13

Policy Authorizing the Federal Role X-15
    Policy Emanating from the Supreme Court. X-18
    Policy Emanating from the Congress X-22
    A Summary of Federal Participation X-23
The Role of State Government. X-23
    Florida: Procedure for Selection of Instructional Materials. X-24
    Pennsylvania: Procedure for Selection of Instructional Materials. X-30
    Colorado: Procedure for Selection of Instructional Materials. X-34
    Summary. X-35
The Role of Local District Government X-37
    Jefferson County School District of Colorado X-38
    Philadelphia School District of Pennsylvania X-41
    Dade County School District of Florida X-44
Conclusions for Federal Policymaking. X-44

IV EXPLAINING INSTRUCTIONAL MATERIALS SELECTION AND EVALUATION DECISIONS: THE CONFIGURATIONAL APPROACH . . . X-47

Expanding the State-Level Configuration X-49
Sharpening the Focus. X-51
Identifying Important Publishing or Assessment Agencies . X-52
The Configuration of Publishers, Assessors, and Educators X-53
Identifying the Fundamental Sources of Authority. X-53
Identifying the Configuration of the Three Groups X-54
Testing the Configuration Against the Analyst's Purpose . X-55

V IMPLICATIONS CONCERNING THE INSTRUCTIONAL MATERIALS ADOPTION SYSTEM X-57

Implications for the Instructional Materials Selection and Evaluation Process. X-57
  The Structure of the Decision Process. X-57
  Characteristics Evaluated. X-58
  Using Policy Knowledge in Dissemination Planning . . X-58
Issues Unaddressed in This Analysis X-59
Implications for Federal Agencies X-60

ANNEXES

A THE USE OF THE ANALYTIC FRAMEWORK IN THIS CASE STUDY. X-63

B INCIDENTAL OBSERVATIONS ON THE ROLE OF POLICY IN INSTRUCTIONAL MATERIALS SELECTION AND EVALUATION . . X-69

C HOW THE CASE STUDY STATES WERE CHOSEN. X-79

D TAXONOMY OF POLICIES CONSIDERED SIGNIFICANT IN THE STUDY OF THE INSTRUCTIONAL MATERIALS SELECTION AND ADOPTION PROCESS X-85

BIBLIOGRAPHY X-89

ILLUSTRATIONS

X-1 The General Graphic. X-16

X-2 Federal Main-Line Involvement in Instructional Materials Selection and Evaluation X-20

X-3 Florida State-Level Policy on Instructional Materials Selection and Evaluation X-27

X-4 Pennsylvania State-Level Involvement in Instructional Materials Selection and Evaluation X-30

X-5 Colorado State-Level Involvement in Instructional Materials Selection and Evaluation X-34

X-6 Development of a County-Approved Materials List: Jefferson County, Colorado X-38

X-7 Process for Selection and Installation of New Materials: Jefferson County, Colorado X-41

X-8 A General Graphic for Showing an Expanded Configuration of the Instructional Materials Selection and Evaluation Process X-50

TABLES

X-1 Policies Supporting Finding 1 . . . . X-3

X-2 Policies Supporting Finding 2 . . . . X-5

X-3 Federal Policies Affecting Instructional Materials Selection and Evaluation. X-21

X-4 Florida State-Level Policies Affecting Instructional Materials Selection and Evaluation. X-28

X-5 Pennsylvania State-Level Policies Affecting Instructional Materials Selection and Evaluation. X-31

X-6 Colorado State-Level Policies Affecting Instructional Materials Selection and Evaluation. X-35

X-7 Summary of Policies Governing Instructional Materials Selection and Evaluation in Three States. X-36

X-8 Basic Demographics of Three Districts X-37

X-9 Policies Affecting Instructional Materials Selection and Evaluation: Jefferson County, Colorado X-39

X-10 Policies Affecting the Selection and Installation of New Materials: Jefferson County, Colorado X-42

X-11 Three-District Comparison of Key Policies X-45

C-1 Demographic Comparison of Sample Districts Within Case Study States X-82

C-2 Differences in Political Culture as Reflected in the Basic Philosophy of the State Education Code. X-82

I EXEMPLARY FINDINGS

For the reader who is interested first and foremost in the results of this analysis, we present this brief discussion of three principal findings.*

The Key Agents

> Finding 1: Individual teachers are the "key" instructional material (IM) decision makers only in that they have the final say at the end of a long and complex process. Most of the significant decisions are made by the dozens of other agents who contribute to the process.

This first finding was discovered in response to the question, "Who are the key instructional material decision makers?" Popular and persistent myth indicates classroom teachers. Our analysis shows that this myth is a function of the way the question is asked. The question implies there ought to be some key agent making a central decision, but no one agent has much decision-making power over instructional materials. Simply because they make the final decision to admit or veto materials for the classroom, teachers appear to have a great deal of control. In fact, the ordeal faced by any new material is long and involved, leaving teachers the final decision on only those materials that get as far as the classroom. As a result, teachers are seldom presented with more than a few options from a state- or district-approved list. These few options are typically homogeneous "packages" that differ more on characteristics such as durability than on instructional style or proven effectiveness.

---

*Additional findings are discussed in Section V; moreover, Annex B contains many incidental insights and questions collected during the analysis.

Policy Illustrating Finding 1

Table X-1 shows the roles of various agents in the instructional materials selection process in the most decentralized case we examined, Jefferson County District in Colorado. For similar policy evidence of the limited role of teachers in the other two states examined, see Section III.

Implications of Finding 1 for KPU* Policy Planning

The principal implication of this finding for KPU policy planning, in areas such as dissemination, is that it may be misleading to search for the "key agents" or the "key policies." Often, the whole network or the coordinated configuration of agents is the significant determining factor.

For instructional materials selection and evaluation, determining how the task has been divided and coordinated overall is more important than identifying the key agent. This brings us to the second finding.

The Complexity of the Process

> Finding 2: The instructional material selection process is incredibly complex; however, evidence exists that the process is still not complex enough to cope with the tremendous variety of educational needs in the student population.

The complex instructional materials selection and evaluation process can be organized around a few key ideas, as the body of this case study shows. Therefore, it is possible to develop a strategy for analyzing and mapping the network without losing the pattern of decision making or arbitrarily oversimplifying what is necessarily complex in reality. This

---

*Knowledge production and utilization.

Table X-1

POLICIES SUPPORTING FINDING 1

Role of Agents Other Than Individual Teachers in Instructional Materials Selection: Jefferson County, Colorado	Role of Individual Teachers in Instructional Materials Selection
County Board must give final approval to materials recommended for use in the district (JC Ed. Pol. 6340.1). Recommendations of new materials for the county-approved list are made by the Citizens' Advisory Committee, which is composed of two laymen from each high school area and is chaired by the district Directors of Curriculum (JC Ed. Pol. 6340.1). The district Directors of Curriculum prepare the catalog of Board-approved materials (JC Ed. Pol. 6340.1). The Citizens' Advisory Committee is assisted by the Required Materials Evaluation committees, composed of one teacher representative from each administrative area and chaired by a district subject area coordinator (JC Ed. Pol. 6340.1).	Each teacher has the right (as does any other citizen) to challenge any material (JC Ed. Pol. 6321.1). Each teacher chooses materials from the approval list according to the procedures coordinated at the school site (JC Ed. Pol. 6340.5). No more than five sample copies of nonapproved materials may be purchased (JC Ed. Pol. 6340.5).

strategy may make it possible to respond to the need for even more variety and complexity in the decision process.

That the existing instructional materials decision system is still not complex enough is revealed by the contrast between policies that demand more diversity and policies that outlaw it. The system is being asked to "individualize" the instructional package and program of each student, but, as classroom teachers will testify, one can rarely control that much complexity. Moreover, "individualization" is taking on a new dimension, the proliferation of life-styles and subcultural preferences. It is one thing to give every student an individualized opportunity to reach the same goal; it is quite another to offer widely differing alternatives and conflicting goals within the same educational network.

Policy Illustrating Finding 2

To illustrate Finding 2, Table X-2 presents several policy statements from each of the three case-study states. The table contrasts policy demanding more complexity or variety in meeting student needs with policy demanding uniformity or limiting the variety of responses to student needs.

Implications of Finding 2 for KPU Policy Planning

The principal structural implication of this finding for monitoring KPU is that, though complex, the instructional materials selection and evaluation process can be conceptually organized and mapped. This mapping need not arbitrarily oversimplify the process, nor assume it is singular, consistent, and well-ordered.

The principal substantive implication for monitoring KPU is that one must face the needed complexity squarely, if one is to develop a KPU governance system that allows and encourages educational practitioners to take advantage even of the instructional material options that already

Table X-2

POLICIES SUPPORTING FINDING 2

Policies Indicating the Rising Call for More Variety in Instructional Materials	Policies Indicating Legal Prohibition of Variety and Direct Attempts to Limit the Range of Instructional Materials
Federal	
States may not prohibit the teaching of non-English languages in the elementary schools (Mo Hock Ke Lok Po v. Stainback) (Bartels v. Iowa).	The principal instruction language for all students shall be English (Powell v. Board of Education).
Colorado	
Section 123-21-3 encourages teaching non-English-speaking students in their native language while they are making the transition to English.	Section 123-21-3: Bilingual schools are to be used only to assist students while they acquire English skills, not as the principal instruction language in any schools.
Section 123-21-4. The 1969 update of the education code added to the history and civil government requirements provisions for specific attention to incorporation of contributions of minorities to the state and nation.	Section 123-21-4: All schools in Colorado must teach the history and civil government of Colorado.
Pennsylvania	
22 Pa. Ed. Code 5.2 mandates that "The Board [of Education] through the Department, shall delegate to a Board of School Directors the greatest possible flexibility in curriculum planning which is consistent with quality education for every pupil in this commonwealth."	Pennsylvania state court ruled that state statutes specifically presenting that certain subjects be taught are mandatory on schools boards (Ehret v. School District of Borough of Kulpmont).
22 Pa. Ed. Code 5.24: Provides for bilingual education.	22 Pa. Ed. Code 5.24: Provisions for bilingual education were passed in 1974. However, such education is reserved for students making a transition from another language to English.
22 Pa. Ed. Code 5.3 notes that "The Department may grant exceptions to specific regulations when it is necessary to adapt to particular school district curriculum needs."	
Florida	
Florida Ed. Code 233.07: Originally this section provided for the establishment and operation of a state Textbook Committee. This has now been expanded to be a state Instructional Materials Committee.	Florida Ed. Code 233.07: Materials suitable for public school curricula are chosen by state-level Instructional Materials Councils; their decisions are transmitted to the schools in a state-approved instructional materials catalogue. The schools must spend the bulk of their instructional materials funds for items from this list.
Florida Ed. Code 233.10: The findings of the Councils, including the evaluation of instructional materials, shall be in sessions open to the public. All decisions leading to determinations of the Councils shall be by roll call vote, and at no time will a secret ballot be permitted.	
Florida Ed. Code 233.34: Up to 25% of state-allocated instructional materials funds may be used to purchase materials not included in the state-approved catalogue of instructional materials.	Florida Ed. Code 233.34: The state determines by formula and supplies the funds for instructional materials to the district.
	Florida State Constitution, Article IX, Section 1: "Adequate provision shall be made by law for a uniform system of free public schools ...." Purchase of materials not on the state-approved list must be conducted within state standards and procedural guidelines.

exist. If any single limitation most inhibits the adoption and application of a wider range of materials options, it is the structure of the instructional materials selection decision itself. This is the subject of the third finding.

Policies as Sources of Information

> Finding 3: The collected policies that affect instructional materials selection reveal that certain characteristics of materials dominate attention in the decision as it is practiced.

A summary review of the policies collected for this paper reveals that instructional materials decisions, as formally practiced, are dominated by the following characteristics:

- The decision should be made rationally, with convergent "compromise" the preferred solution for all types of conflict.
- The decision is essentially made up of technical matters of "how to teach."

What is disturbing about this finding is that the policies fail to incorporate some other characteristics; for example:

- No policies were found that make challenging what should be taught as important as challenging how it should be taught.
- No policies were found recognizing that what should be taught and how it should be taught are both as much value issues as technical issues.
- No policies were found declaring that creating and sustaining drastically different forms of education at public expense in response to real value conflicts should be a solution just as acceptable as homogeneous compromise.

Policy Illustrating Finding 3

Finding 3 pertains to the overall pattern one sees when looking at instructional materials policy as a whole; there are not a few key policies that alone support or refute the finding. Therefore, we ask the reader to use the whole of this case study as evidence for this finding.

Implications of Finding 3 for KPU Policy Planning

With respect to the process of instructional materials selection and evaluation, KPU leaders need to do more than develop a strategy for broadening the range of available materials. They must improve the decision-making process itself and broaden the range of values and criteria employed in conducting such decision reform activities.

A final observation relative to the foregoing three findings is that the structure of participation in the decision-making process is probably the most important determinant of which materials are adopted--"the medium *is* the message." A decision system organized to seek compromise solutions does not encourage real variety in development or adoption of instructional materials. Moreover, a decision system with an a priori preference for simple solutions that remain nonpolitical is unable to generate the complex responses demanded by real value conflicts.

II INTRODUCTION

This paper, as part of a larger study of the KPU governance system, focuses on the set of formal policies that affect instructional materials selection and evaluation.

The selection and evaluation of instructional materials became particularly important to the federal government when, during the Sputnik era, several federal agencies were looking for a strategy to promote curriculum reform. They chose to sponsor development and dissemination of new instructional materials (see Case Study VI) as a result of three observations:

- New curricular ideas and teaching methods were believed easily incorporated into instructional materials.
- Instructional materials appeared easy to disseminate and to have fairly rapid turnover in schools.
- New instructional materials were already a traditionally accepted method of communication from knowledge producers to knowledge users.

Thus, under this strategy for promoting curriculum change, the governance system that controls the selection and evaluation of instructional material also controls a major link between knowledge producers and knowledge users. Such a governance system is important in the total KPU governance network and deserves to be explicated.

This analysis had three goals. The first and foremost was to show that a policy-centered analysis can be conducted on this topic according to the principles of the Analytic Framework for Educational Policy Analysis. The second was to pull together a set of meaningful insights about how responsibility for instructional materials selection and evaluation processes is divided and coordinated by various policies. The third was to show the general utility of an analysis of instructional materials governance.

The Analytic Approach:* Using Formal Policy to Explore Structure and Process

The approach taken to reach the goals mentioned above had three basic steps. The first step was using formal policy, beginning with the U.S. Constitution, to sort out the legal responsibility at the different governance levels for various instructional materials selection and evaluation decisions. To do this, we looked at federal law and at the state and local education policy in three states: Colorado, Florida, and Pennsylvania (see Section III).+

The second step in the approach was examining several levels of decision making. While focusing on the actors who make the main-line instructional materials selection and evaluation decisions, we elaborated the configurations of actors and policies that provide the field of constraints and incentives in which they must operate, such as from publishers and testing agencies (see Section IV).

The third step of the analysis was assessing the implication of this policy structure for developing alternative strategies to constructively monitor dissemination of new instructional materials (see Section V).

---

[*] The methodology used in this approach (the Analytic Framework for Educational Policy Analysis) is discussed in detail in Annex A.

[+] The rationale by which these states were chosen is included in Annex C.

Origins of the Data Used

Two sources of information were used for this analysis. The primary source was archives of formal policies. Information was also gathered by telephone and personal interviews with agents engaged in instructional material management within the three selected states.

The Role of Policy in the Division of Responsibility

Responsibility for instructional materials selection and evaluation is divided three ways as a result of complex historical events that have shaped American education over the past two hundred years. Decision making is divided:

- Among seven levels of formal authority.
- Between lay-value decisions and professional-technical decisions.
- Among publishers, assessment agencies, and main-line educators.

The seven levels of decision authority are federal, state, regional, local district, school site, individual teacher, and parent-student.* Each of these levels is a forum that has legal authority over various aspects of the question, "Which instructional materials should be used in the learning setting?"

The division between professional-technical and lay-value decisions concerns distinguishing between technical matters that can best be decided by professional educators (such as whether to use phonics to teach new readers) and value matters that belong to individual students or the public (such as whether to teach sex education in the public junior high schools).

---

*These seven categories are taken from the set of location categories in the taxonomy of the analytic framework, based on empirical evidence that material-relevant decisions are made at each of them.

The division of responsibility among publishers, assessment agencies, and main-line educators results from the way in which our nation has organized the tasks necessary to physically produce and move new materials into the classrooms. Publishers generate the products, assessment agents provide the framework for evaluating the products, and main-line educators make the actual selection and installation of materials from the options available on the market.

Because the division of responsibility along these three dimensions differs widely among the 50 states, and because the central purpose of this document is to demonstrate the analytic framework, the discussion has been arbitrarily limited in scope. We will look at exemplary policy for instructional materials at the federal, state, and local district levels in three states.

III THE FUNDAMENTAL WAYS THAT POLICIES STRUCTURE MAIN-LINE INSTRUCTIONAL MATERIALS SELECTION AND EVALUATION

Two general policies, which reflect our national political culture, underlie the whole body of law affecting instructional materials. The first is formally stated in the Constitution in the ninth and tenth amendments--that the power to make (education) decisions belongs to the people or designated lower levels of government unless deliberately delegated to and acted upon by a higher level of government (*Montana State v. Millsap*). This delegation of authority from the people to a higher governance level may legally be accomplished only by a statute or other formally authorized policy. Thus, for the first hundred years of our national history, in the absence of such statutes, selection of instructional materials for use in the schools was under the control of teachers, monitored by school-site boards of parents.

The second fundamental policy regulating the instructional materials selection and evaluation process is not easily captured in a single formal policy reference, but relates to our national preference for private enterprise and private-sector associations over public agencies.[*] With the rise of the public schools during this century, the actual selection and evaluation of specific materials has slowly come into the hands of public officials. However, both the marketing of materials and the enforcement of appropriate assessment standards have traditionally been left to private industries and nongovernmental agencies (publishers, foundations, voluntary associations, accrediting agencies, and testing services).

---

[*] This spirit pervaded the Marshall court in the late 1800s and the Warren court as it swung back from "Dred Scott" in the interpretation of the role of government in American affairs (see Goldberg, 1971; a bibliography of cited and uncited references is appended to this case study).

In this section, we deal with the first of these two policies and with the way in which specific instructional materials selection and evaluation responsibility is actually captured in the various policies and the organization structure of our educational system. The explication of the second policy and the influence on formal policy of marketing and assessment agents are discussed in Section IV.

To understand how responsibility for instructional materials selection and evaluation is formally allocated, we need to identify two types of policies.

> First, we must identify the types of policies that determine the decision domains held by various materials selection agents at each level of educational governance.

To identify these domains we have to collect the authorizing policies that create and control the roles of the agents and governance levels in which we are interested. For example, to understand the federal domain for instructional materials selection and evaluation, we must look at the constitutional separation of powers and at its interpretation by both the Supreme Court and the Congress. To understand the options of a State Education Agency (SEA), we must look at the state constitution, state legislative statutes, state-level case law, and several other forms of relevant policy, particularly that coming from the federal level. Examination of such policies shows that authorization is typically of three types:

- It specifies the jurisdiction of a given agent.
- It provides guidelines for exercise of discretion within that jurisdiction with regard either to due process or substance.

- It provides the basis for cooperation among agents and agencies.

These types of policies will be displayed as incoming to the governance level under investigation (see Figure X-1, Box D).

Second, we must identify the policies that emanate from the agents in question as they exercise their decision options.

Within each policy-defined framework, each level of authority has four basic options with regard to the policies it issues.* It can:

- Simply make the specific instructional materials selection and evaluation decision.
- Assign specific decisions to its professional staff or executive agency (with or without guidelines for making the decisions).
- Assign the decision to a specific lower level agency (with or without guidelines, perhaps even creating a new level of governance).
- Through deliberate decision or benign neglect, simply remain silent and let the matter automatically revert to a lower level for determination.

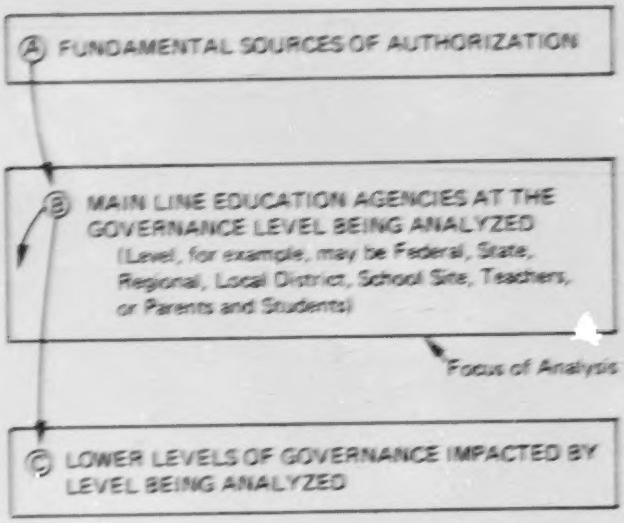
These types of policies will be displayed as emanating from the level of governance under investigation (see Figure X-1, Box E).

Policy Authorizing the Federal Role

The federal role in instructional materials selection and evaluation is formally specified by a small set of policies springing from the Constitution. Article IV and the ninth and tenth amendments provide the people and the states with responsibility for tasks not deliberately and

---

*In Section IV, we discuss the strategy for mapping other indirect, yet formal policy options by which agents at each level are able to exert pressure on, usurp, or simply bypass the actions of others.


Ⓐ FUNDAMENTAL SOURCES OF AUTHORIZATION
Ⓑ MAIN LINE EDUCATION AGENCIES AT THE GOVERNANCE LEVEL BEING ANALYZED
(Level, for example, may be Federal, State, Regional, Local District, School Site, Teachers, or Parents and Students)
Focus of Analysis
Ⓒ LOWER LEVELS OF GOVERNANCE IMPACTED BY LEVEL BEING ANALYZED

This figure is the general model for all other figures presented in this case study. The focus of analysis (Box B), in each figure, is a level of education governance. The objective is to display the relevant agents acting at this level and the paths of policies that are either issued by them or that they use to guide their activities. Additional agents in the graphics are of two sorts. First are those agents from higher formal authority levels (Box A) who issue or enforce regulations placed on the level in question. Second are those agents (Box C) who fall within the jurisdiction of the decisions and policies issued by the level in question.

Policies are captured in the graphics by arrows and are listed in a table of policies associated with each figure. The tables for federal and state instructional materials selection and evaluation policies are divided into two segments according to whether the policy is incoming or outgoing at the level in question. For example, below is the general table for listing the policies that mark the agent/policy configurations that give rise to the instructional materials selection and evaluation process:

Ⓓ TYPES OF POLICIES FLOWING FROM A TO B	Ⓔ TYPES OF POLICIES EMANATING FROM B
1. Specify jurisdiction of an agent. 2. Provide guidelines for due process. 3. Form a framework for cooperation among agents.	1. Materials decisions to be followed (i.e., decisions made by the agent issuing the policy). 2. Decisions assigning decision to professional staff or executive agency. 3. Decisions assigning decision to a formally established lower level agency. 4. A formal stand of silence taken on the matter.

FIGURE X-1 THE GENERAL GRAPHIC

formally delegated to the federal level by other provisions of the Constitution. Education is not included in any of the other provisions. These policies not only limit formal federal involvement, but also establish a principle that helps prevent evolving statutory or case law from building federal influence in the specifics of the curricula per se.

However, the Constitution does establish a system of priorities that permits and requires federal involvement in the instructional materials selection and evaluation processes where other constitutionally guaranteed rights are entailed. Through this indirect route, federal involvement in education has grown. For example, the provision of the Constitution making it mandatory for the federal government to provide for national defense and promote the common welfare is the basis on which the Congress authorized establishment of what is now HEW and, specifically, USOE and NIE within it. Moreover, these provisions were the basis for the passage (after Sputnik) of specific education programs, such as NDEA in 1958.[*] Thus, while lacking a general mandate to establish and operate a system of public instruction (which most other national governments have), our federal government has nevertheless entered this arena on an issue-by-issue basis. Slowly but steadily the Supreme Court has found that the Constitution provides a significant decision role at the federal level for each branch of government in the conduct of education and specifically in the instructional materials selection and evaluation process.[†]

---

[*] This act was the first significant attempt by the federal government to directly influence curricula. However, a few years earlier NSF had begun to mount its "new math" and "new science" curriculum projects; this effort is discussed in Case Study VI.

[†] Even the Constitution is subject to changes that may affect instructional materials selection and evaluation. Under the 14th amendment, the treatment of minorities in textbooks has been successfully challenged; if the Equal Rights Amendment is passed, we can expect textbooks to change even more in their treatment of women.

Figure X-2 (page X-20) shows the Supreme Court and the Congress as examples of federal-level agents with policy roles affecting instructional materials selection and evaluation.[*] Significant authorizing policies, such as those just discussed, are listed on the left side of Table X-3 (page X-21); significant policies emanating from Congress or the Supreme Court[†] are listed on the right.

Policy Emanating from the Supreme Court

The Supreme Court has taken upon itself instructional materials decisions in two major areas: religion and foreign language. In *Harfst v. Hoegen*, for example, the Court found that the school board cannot employ its power to enforce religious worship by children even in the faith of their parents and, moreover, that public funds may not be used for the purchase of materials to this end in public schools.[‡] In *Bartels v. Iowa* and again in *Mo Hock Ke Lok Po v. Stainbeck*, the Court found that the state could not prohibit the teaching of modern foreign language in the elementary schools, not even below the fourth grade. What remains unclear is whether the states can require that English be the principal language for instruction in all public school classrooms. Most states now have such a requirement typically born out of the efforts to "Americanize" immigrants in the early 20th century (for example, Colorado Ed. Code 123-21-3; Pennsylvania Ed. Code 5.24).

---

[*] The executive branch and the individual federal agencies could be treated in a similar way, but the effort was not justified by the purpose here--that is, demonstrating the approach of the analytic framework.

[†] The U.S. legal system follows the principles of British common law. As a result, the federal and state courts emerge not simply as policy enforcement agencies but as active and powerful policymaking bodies--through case law they move decisions from the informal to the formal realm. Nowhere in education is this more evident than in curriculum regulation (with the possible exception of the growing drive for school finance reform).

[‡] Because of the Court's policy on the strict separation of education and religion, it was not until President Kennedy put together the ESEA coalition of educators and included the private school interests that all sides and special interests would permit major education bills through Congress.

The "staff" to which the Supreme Court "assigns" some of its decisionmaking authority is the federal court system. While this system has addressed numerous civil rights cases, for example, we found no outstanding instances in which the Supreme Court has accepted, without formally hearing decisions having major impact on main-line instructional materials selection and evaluation.

Supreme Court decisions affirming or clarifying the authority of lower level agents must take the form either of upholding statutes or of providing final opinion on a matter of case law. For instance, the Court has found that, where the state statutes specify how textbooks are to be selected, the local districts must follow the statute (*Vaughan v. John C. Winston Co.*). States *can* require the local districts to buy textbooks only from lists on record with the Chief State School Officer (CSSO) at prices therein named (*Macmillan Co. v. Johnson*). States *can* assign the textbook selection task to state education agency personnel, such as the State Board of Education (SBE) or the CSSO (*North Dakota State v. Totten*). Moreover, the Court has effectively upheld the right of school districts to choose and use only one common textbook when individual parents would prefer their children to use different materials (*Illinois School Trustees v. People*). Effectively then, it is not incumbent on the states or the schools to differentiate among classrooms or school sites to offer different versions of the same lessons.

Finally, the Supreme Court formally affects policy by two types of silence. The first is a refusal to hear a case at all. The second is a ruling either that a case once heard is not in the Court's jurisdiction

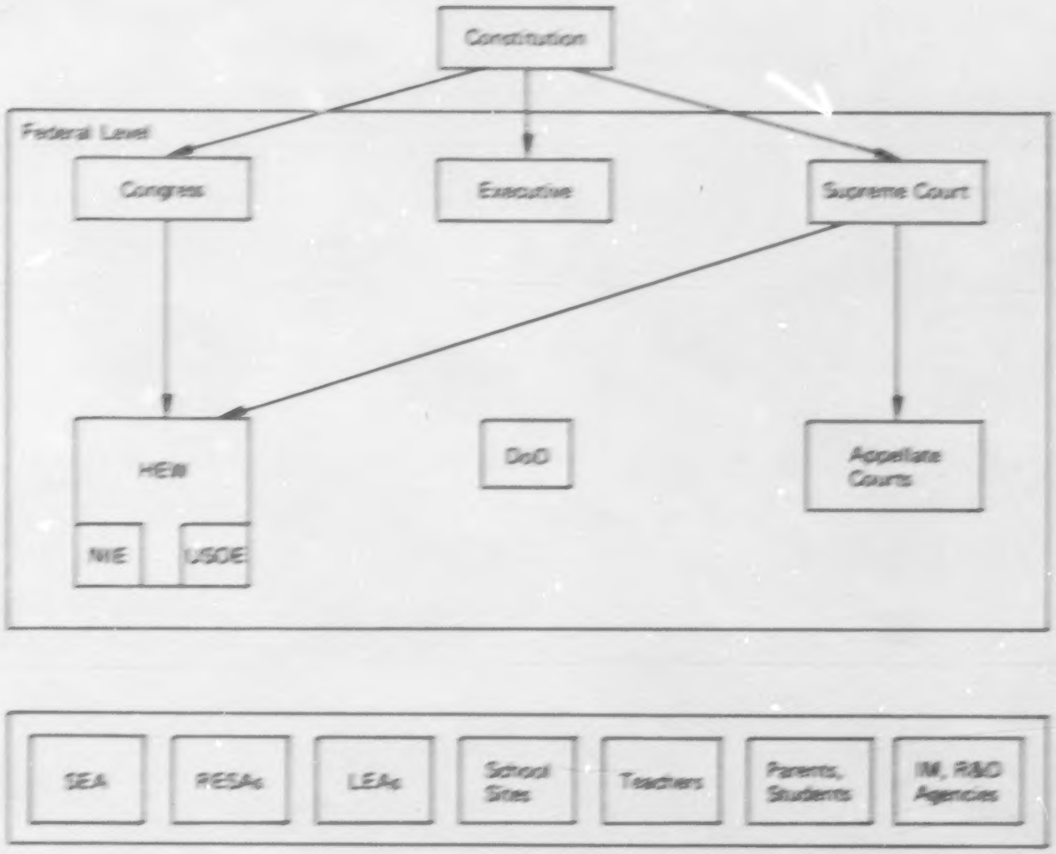

Constitution
Federal Level
Congress
Executive
Supreme Court
HEW
NIE
USOE
DoD
Appellate Courts
SEA
RESAs
LEAs
School Sites
Teachers
Parents, Students
IM, R&D Agencies

FIGURE X-2 FEDERAL MAIN LINE INVOLVEMENT IN INSTRUCTIONAL MATERIALS SELECTION AND EVALUATION

Table X-3

FEDERAL POLICIES AFFECTING INSTRUCTIONAL MATERIALS SELECTION AND EVALUATION

Incoming Policy	Outgoing Policy
Ninth and tenth amendments and Article IV. Federal government shall provide for the national defense and public welfare. First amendment: Separation of church and state. Fourteenth amendment: Equal protection under the law. The President shall uphold the laws of the United States.	Montana State v. Millsap: People of state must formally vest authority for education in the state. Reorganization Plan of 1953, House Joint Resolution 223: Establishment of HEW. 14 Stat 434: Establishment of USOE. PL 92-318: Establishment of NIE. National Defense Education Act of 1958. PL 89-10: Establishment of ESEA programs. Supreme Court enforces first amendment guarantees of separation of church and state in education. States may not prevent the teaching of any foreign language in the schools. The local board of education (LBE) must follow state procedures if they have been established for instructional materials selection. It is within the state's power to require LBE to be restricted to instructional materials chosen by the state for this use. The school district has the authority to require that a common text be used if choice of that text falls within the state statutory provisions. Court refuses a Writ of Certiorari on Rodrigues question.

or that the point is moot. The availability of resources for education, including instructional materials, has been profoundly affected recently by Rodriguez v. San Antonio Independent School District, in which the Court maintained formal silence by ruling that the case belonged to determination within the State of Texas.

Policy Emanating from the Congress

By constitutional mandate, the Congress is formally precluded from prescribing the content of the curriculum. However, through the National Defense Education Act of 1958 and the Elementary and Secondary Education Act (ESEA) of 1965, Congress established two precedents. The first is the congressional right to encourage curriculum change by offering incentives for congressionally favored options. The second is to provide resources for adoption of instructional materials even to private school students by focusing the aid on the student rather than on the school he attends.

However, the Congress has made its chief impact on curriculum through its executive staff, such as USOE and NIE, and through establishing programs to be managed by these agencies. The NSF SMSG program (see Case Study VI) marked the start of this effort.

When simple development of materials did not lead to their immediate adoption, Congress turned to improving the responsibility and responsive capacity of lower levels of government. Through ESEA and the recent capacity-building mandates, Congress directly supplied resources and a statement of basic congressional intent to encourage change by SEAs, Regional Educational Service Agencies (RESAs), local districts, and even individual teachers.

Congressional silence within its legal domain is typically the result of either a deadlock of interests or the newness (low visibility) of the problem. Currently, congressional silence relative to several aspects of education is crucial, but they are not in the main-line instructional materials selection and evaluation process. The problems lie more in copyright laws and in personal privacy and educational assessment policies.

A Summary of Federal Participation

The net effect of the constitutional limitations on the federal role is that the Supreme Court, directly,* is the most significant policy-determining body at the federal level relative to instructional materials selection and evaluation. The Court determines what materials shall be available (Macmillan Co. v. Johnson), who may exercise choice (Vaughan v. John C. Nixstonce), and what resources shall be used for instructional materials (Rodriguez v. San Antonio Independent School District). This situation will probably continue so long as Congress is precluded from affecting the curriculum by direct means other than incentives (unless those incentives become a major fraction of local education expenditures).

The Role of State Government

Under the U.S. Constitution (article IV and the 10th amendment), the states have final responsibility for public education. With the exception of responsibilities slowly being assumed by Congress and those within the domain of the Supreme Court, state-level constitutions, legislatures, and courts have the final authority for management of the educational system. How the individual states handle this responsibility is varied. As case studies for this analysis, we examined how Colorado, Pennsylvania, and Florida govern the instructional materials selection and evaluation process.

---

*The Congress and the President each have powerful indirect means at their disposal, by which they affect instructional materials selection and evaluation.

Florida: Procedure for Selection of Instructional Materials

Of the three states examined in this pilot study, Florida retains the greatest responsibility for instructional materials selection and evaluation at the state level--in the state legislature, in the State Board of Education, and in their professional education staff (the Florida State Department of Education). This authority is vested by the state constitution (article IX), which states simply that: "Adequate provision shall be made by law for a uniform system of free public schools ...."

In response to this charge, the Florida Legislature has taken full responsibility for the schools and has defined instructional materials as:

> ... items that by design serve as a major tool for assisting in the instruction of a subject, course, or activity. These items may be available in bound, unbound, kit, or package form, and may consist of hard or softback textbooks, consumables, learning laboratories, slides, films and filmstrips, recordings, manipulatives, and other commonly accepted instructional tools [Florida Statutes 233.07 (4)].

While each district is responsible for selecting those instructional materials most suited to its needs, choices must typically be from the state-approved list [233.34(2)]. Each district is allotted a materials budget according to a formula by the State Department of Education (236) and may spend up to 25% of this budget for purchase of materials other than those in the state catalogue [233.34(2)]. From this 25%, districts are allowed to support production of materials designed and developed within their districts [230.03(1)]. However, all such purchases must be conducted within state guidelines and routed through the regular state materials purchasing channels [230.03(1)]. No large discretionary funds are given as block grants to the districts for materials (contrast this with Pennsylvania), nor are funds directly collected by the local district for such purposes (as in Colorado). No formal appeal is specified in the state code for local districts to exceed this 25% limit on non-approved materials.

Therefore, at least 75% of the expenditure on instructional materials is for materials from the *Florida State-Adopted Instructional Materials Catalogue*. Because of this basic structure for instructional materials selection and evaluation, there are three stages of activities that govern the introduction of most new instructional materials into the classroom:

- The types of materials needed, must be determined, and a state-level materials review system must be established.
- The available items that meet specific needs must be identified and added to the state list of approved materials.
- Materials must be selected from the list and installed by the districts.

Each of these is discussed below.

Policies Specifying the Process for Determination of Instructional Materials Needs and Establishment of Review Panels

Each year the Commissioner of Education submits suggestions of the subject areas for desirable new adoptions to the State Board of Education [233.07(1)(b)]. This consideration is based on information received from the district [233.07(1)(b)] and on the expected expiration of the regular four-year cycle for material evaluation (233.17). Moreover, the Commissioner makes recommendations about the Instructional Materials Councils (also called review panels) that will be necessary for reviewing materials [233.07(1)(b)] and recommends professional educators and lay citizens to serve on these councils [233.07(1)(b)].

From these recommendations the State Board determines the numbers of Instructional Materials Councils that will be convened and the topics they will cover, and appoints their membership [233.07(1)]. Each council has nine members: four teachers, two lay members, one local school board member, and two supervisors of teachers. In addition, each council has two ex officio members: the Commissioner of Education and a member from the State Department of Education, who serves as council secretary (233.07). [The task of secretary is crucial because the law requires that detailed records of proceedings and findings be kept (233.09(5).] As the first order of business, the council elects a chairman and a vice-chairman [233.09(2)]. The rules and guidelines [233.09(3)] for the ensuing evaluation, the criteria [233.09(4)], and the uniform evaluation forms [233.09(3)(b)] to be used by district evaluation councils, professional associations, and interested persons in the general public are generated and transmitted to the Commissioner. The criteria and procedures are written into a public statement [233.09(04)]. The process of assessing specific new materials for the state-approved list may now begin.

Policies Specifying How the State-Approved List Shall Be Constructed

After the councils are established and members agree upon the criteria and procedures to be followed, a call for bids must be advertised in Tallahassee newspapers before May 15 of each year (233.14) (see Figure X-3 and Table X-4). Materials are delivered by the bidder to the State Department of Education [233.14(3)]. When bids have been submitted and sample materials have been distributed by the Department to the council, the evaluation process begins. The council's ultimate product is a

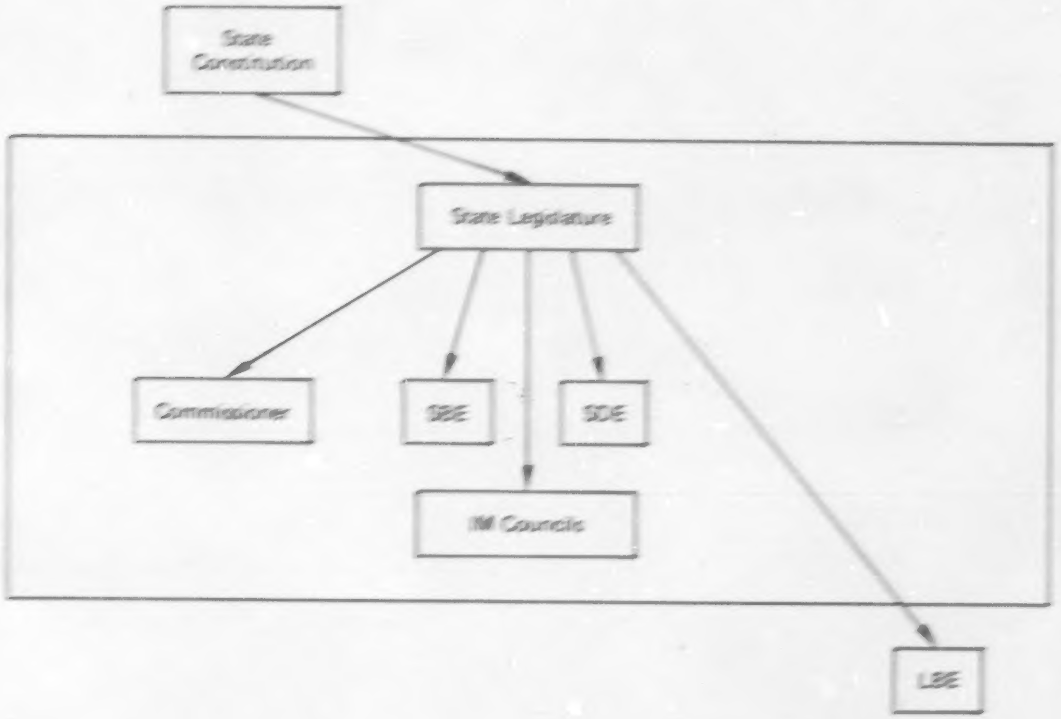


FIGURE X-3 FLORIDA STATE-LEVEL POLICY ON INSTRUCTIONAL MATERIALS SELECTION AND EVALUATION

list of materials recommended for inclusion in the Department's state list of approved instructional materials [233.09(5)].

All council meetings must be public (233.10). Decisions leading to determinations of the council must receive a roll call vote; secret balloting is not allowed (233.10). Together with the recommendations (a ranked list of recommended adoptions for each grade and subject area), the councils must describe the procedure used to generate each recommendation. They must also state other information, opinions, and recommendations deemed helpful, including dissenting opinions. All of the foregoing must be assembled in a package appropriate for publication [233.09(5)].

Table X-4

FLORIDA STATE-LEVEL POLICIES AFFECTING INSTRUCTIONAL MATERIALS SELECTION AND EVALUATION

Incoming Policy	Outgoing Policy
Article 9, section 1, Florida Constitution.	Selection of instructional materials must be made from state-approved list [233.34(2)]. Districts allotted a materials budget must follow formula set by SDE (236). Up to 25% of materials budget may be spent on items not on the state-approved list. Items designed and developed within the district will be paid for from this amendment [236.05(1)]. All purchases of instructional materials shall be conducted within state guidelines and routed through regular state materials purchasing channels [236.05(1)]. No appeal of the 25% ceiling on purchase of instructional materials not on state-approved list is provided by the state code. Commissioner recommends annually the areas in which instructional materials shall be submitted for adoption. The above consideration is to be based on information from the districts [233.07(1)(b)]. All selections of instructional materials expire after four years of use (233.17). The Commissioner shall recommend the instructional materials panels (councils) to be convened and the names of prospective panel members. The State Board shall use these recommendations to determine what panels shall meet and their membership. Each panel is to have nine members (four teachers, two lay members, one LEE member, and two supervisors of teachers) and two ex officio members (the Commissioner of Education and a member of SDE who serves as secretary) (233.07). Detailed records of the panel proceedings and findings shall be kept [233.09(5)]. As the first order of business, panels shall meet to select chairmen and vice-chairmen and develop the rules and forms to be used on the evaluation (233.09). The information concerning the panel in compliance to 233.09 shall be written as a public document (233.14). After a panel is established, it must place a call for bids in the Tallahassee newspapers. This must happen before May 15 of each year. The panel is to produce recommendations regarding materials for the SDE to place on the state-approved list of instructional materials [233.09(5)]. All panel meetings must be public, and all decisions leading to a determination must receive a roll call vote (233.10). All panel materials together with dissenting opinions shall be assembled at the end of the study period in a package suitable for publication [233.09(5)]. Panel findings are delivered to the Commissioner of Education to be presented to SDE. Selection of new materials must be delayed until after May 1 of each year [233.34(4)]. Materials chosen from the list and purchased with state funds become the property of the district [233.47(1)]. Materials must be determined obsolete or worn out before districts may replace them (233.37).

When a selection council completes its recommendations, they are given to the Commissioner of Education, who submits them to the SDE [233.09(5)].

The State Department of Education has the authority to select, from the council's list, the items to be entered on the state list of approved instructional materials that is submitted to the SBE. In addition to council recommendations, the Department of Education considers the bids submitted by publishers who will furnish the materials. After the SBE has determined which items shall receive approval, the districts tender their orders and the state purchases materials to fill the demand. Each year the approved materials are listed in a catalogue distributed to each district.

Policy Specifying Selection of Materials from the State-Approved List

Selection of materials from the list is conducted primarily within local district agencies, but state policies generally specify the process to be followed. Selection of textbooks for a new year must be conducted after teachers have been hired for that year [233.34(4)]. Materials chosen from the list and bought with state funds become the property of the district on delivery [233.47(1)]. Districts may choose materials not on the state-approved list, but such materials must be purchased within state allotments for instructional materials and not in excess of 25% of that. Moreover, such purchases must be made within state guidelines. Materials must be obsolete or physically worn out before the state will allow districts to replace them with newly adopted items (233.37).

Pennsylvania: Procedure for Selection of Instructional Materials

Of the three states examined here, the state-level policy affecting the conduct of the instructional materials selection and evaluation process (rather than the range of choice from which to choose) is most detailed in Pennsylvania and entails the greatest mixture of state and local agents (see Figure X-4 and Table X-5). The Pennsylvania Constitution (article III, section 4) charges the state legislature with the primary responsibility for education in the state. The Pennsylvania Supreme Court has repeatedly interpreted this mandate to mean that the legislature is the final authority over school matters (Jones v. Holes; Ehret v. School District of Borough of Kulpmont). Moreover, in Pennsylvania the local school districts have no authority to levy taxes for the schools except as authorized by the legislature (Wilson v. School District of Philadelphia).

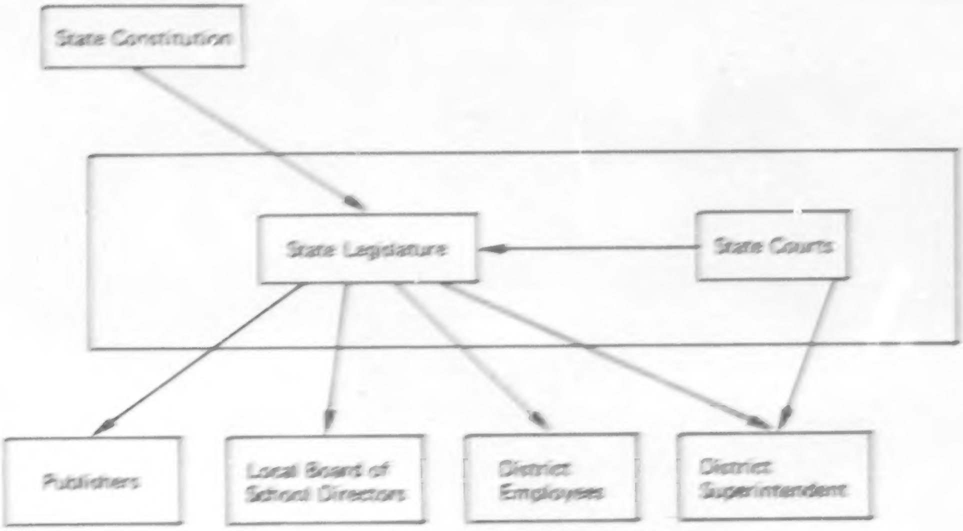

State Constitution
State Legislature
State Courts
Publishers
Local Board of School Directors
District Employees
District Superintendent

FIGURE X-4 PENNSYLVANIA STATE-LEVEL INVOLVEMENT IN INSTRUCTIONAL MATERIALS SELECTION AND EVALUATION

Table X-5

PENNSYLVANIA STATE-LEVEL POLICIES AFFECTING INSTRUCTIONAL MATERIALS SELECTION AND EVALUATION PROCESS

Incoming Policy	Outgoing Policy
Article III, section 4: The responsibility for public education in Pennsylvania is vested in the state legislature.	Jones v. Holes; Ehret v. School District of Kulpmont: The state legislature has final authority in school matters. Wilson v. School District of Philadelphia: The local school districts do not have the authority to levy taxes except as authorized by the state legislature. The local boards of school directors are responsible for the purchase and free furnishing of textbooks and supplies in the schools (8-801). The local district superintendent is to report to the local district board of directors those subjects that need new texts and recommend which materials to purchase (8-803). As part of the considerations that compose the materials recommendations, the superintendent must consult with the teachers who will be using the materials in the coming year (Butler v. Shirley Tp School District). The process of materials evaluations and recommendations shall be conducted, at most, twice a year (8-803). The local board of school directors is required to advertise and take bids for purchases to exceed $1500 (8-6,7). Supplemental materials selection must be made in the same manner as for textbooks, except that they are not under the restraints of two or fewer reviews per year or the necessity to take bids for purchases over $1500 (8-807). Except by a two-thirds vote of the LEA, the textbooks may not be changed without the recommendation of the superintendent (8-807). A recorded roll call vote is required for adoptions of textbooks or courses of study and for entering into all contracts of over $100 (8-807). The district superintendent must make an annual report to the state superintendent and supply additional reports as the state superintendent may require (10-1006). No district employee may act as a publisher's representative (8-808). Any employee accepting a bribe or attempting to influence a book purchaser shall be guilty of a misdemeanor (8-810). Any publisher attempting to bribe a district employee shall be guilty of a misdemeanor (8-809).

Based on such policies, it would seem that the state-level agents might exercise central control of the schools. However, this is not the case. Pennsylvania has a strong "local control of schools" tradition in its political culture. Therefore, the legislature has deliberately delegated most of the curricular decisions to the local district (sections 8-80 et seq.). Moreover, unlike Florida, it has put direct control of funds for instructional materials selection and evaluation in the hands of local district administrations. Basic responsibility for carrying out all identification, evaluation, and selection of instructional materials and for negotiating purchasing contracts with publishers is given to the local district agent (8-801).

However, the state legislature has laid down a detailed set of statutory guidelines as to how the districts shall actually select and purchase materials. The legislature has also specified a few basic criteria that the materials must satisfy.

The central agent for coordinating the instructional materials selection and evaluation process is the local district superintendent, who must report to the local district board of directors which subjects need new textbooks and must recommend which books to purchase (8-803). To compile a list of needed materials, the superintendent is required to consult with the teachers after they have been selected for the new school year (Butler v. Shirley Tp School District).

The local district board of directors is responsible for actual purchase of necessary instructional materials (8-803). The board must furnish textbooks and supplies free of cost for use in their district (8-801). Textbook review is to be conducted, at most, twice yearly (8-803). Where the value of the purchase exceeds $1500, the board is required to advertise and take bids (8-807). Although selection of supplementary books must be conducted in the same manner as for textbooks, they are not subject to the twice yearly constraint (8-807), nor must they be advertised for bid.

While the Pennsylvania Legislature has chosen to put the control of funds directly in the hands of local school directors, it has also established a set of checks and balances on local agents and requires adequate public reporting of all significant transactions (just as the Florida Legislature required of the Instructional Materials Councils).

The school board cannot change textbooks without a recommendation by the local superintendent, except by a two-thirds vote of that board (8-807). An affirmative vote of a majority of all members of the board, duly recorded and showing how each member voted, is required for various items, including adoption of textbooks and courses of study, as well as entry into any contract exceeding $100 (8-807). The district superintendent must make an annual report to the state superintendent and supply additional reports and information as the CSSO may request (10-1006).

Because the local districts must deal directly with publishers and negotiate prices at the local level, the Pennsylvania Legislature has made several specifications regarding this relationship. Besides the mandated public bidding and recording of all contracts (8-807), the legislature has specified that no district employee may act as a publisher's representative (8-808). Any employee seeking or accepting a bribe to influence a book purchase is guilty of a misdemeanor (8-810), as is any publisher who attempts to provide a bribe to a district employee (8-809).

Within these basic constraints, it is necessary to look at the local district instructional materials selection and evaluation policy and at the specific reporting requirements of the CSSO to see how specific materials are selected.

Colorado: Procedure for Selection of Instructional Materials

Colorado schools are operated under one of the strongest norms of local control in the country. In fact, the political culture of Colorado so favors local control in the schools that the state constitution itself guarantees this right (see Figure X-5 and Table X-6). Article IX, section 15, specifies that it is "the local School Boards which shall have control of instruction in the public schools of their respective districts." So that this control may not be usurped indirectly by moving control of textbooks to the state level, article IX, section 16, specifies that "neither the General Assembly nor the State Board of Education shall have the power to prescribe textbooks to be used in the public schools." Because of these two mandates, there is little formal policy relating to instructional materials selection and evaluation above the local district level. Interviews with professional educators in Colorado revealed that the SEA steadfastly avoids infringing on these local rights. Selection and evaluation of instructional materials is totally a local responsibility.

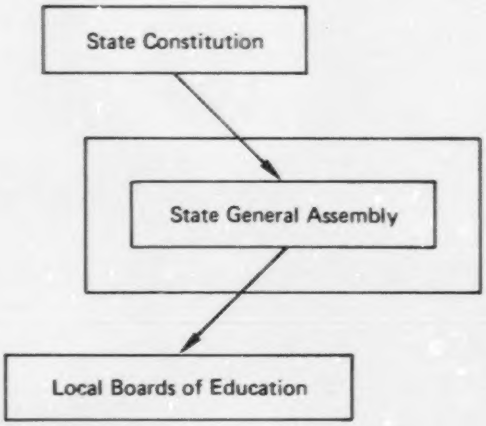


FIGURE X-5 COLORADO STATE-LEVEL INVOLVEMENT IN INSTRUCTIONAL MATERIALS SELECTION AND EVALUATION

Table X-6

COLORADO STATE-LEVEL POLICIES AFFECTING INSTRUCTIONAL MATERIALS SELECTION AND EVALUATION

Incoming Policy	Outgoing Policy
Article IX, section 15: The LBE shall have the control of public instruction. Article IX, section 16: Neither the general assembly nor the SBE shall have the power to prescribe textbooks.	The Colorado statutes do not contain provisions on what should be done concerning curriculum in the districts, or how it should be done.

Summary

We can characterize the governance of instructional materials selection and evaluation at the state level in Florida, Pennsylvania, and Colorado as follows:

- Florida approves a range of materials from which the local districts may make selections and the specific criteria they should use in the selection of nonapproved materials. Details of selection procedures are left to local determination. The state also provides each district with financial credit for materials.
- Pennsylvania specifies at some length who should make the choice at the local district level and what procedures they must follow. They leave the development of criteria and the review of materials to the local level. The state gives each district an allowance for instructional materials.
- Colorado designates the local districts as [illegible] responsible for developing a procedure to accomplish instructional materials selection and evaluation, for developing criteria, for contracting with publishers, and for conducting the selection and evaluation. The state gives responsibility to the local district for raising and spending funds for instructional materials.

Table X-7 summarizes the basic policies that characterize the three states.

Table X-7

SUMMARY OF POLICIES GOVERNING INSTRUCTIONAL MATERIALS SELECTION AND EVALUATION IN THREE STATES

Policy Concern	Comparison by State		
	Colorado	Florida	Pennsylvania
Control of funds for instructional materials	Directors of Curriculum	SDE	Board of School Directors
Primary responsibility to review materials generally available on the market	District level: Curriculum review committees	State level: Instructional Materials Councils	District level: Curriculum review committees
State code specification about minimum materials criteria and standards	None	To be established by each Instructional Materials Council before review of available materials	Each area in Social Studies shall include the active contributions of women and ethnic groups in the history of the United States and Pennsylvania Library ratio of not less than 10 books/pupil or 10,000/school, whichever is smaller Schools must meet accreditation by Middle States Association of Colleges and Secondary Schools

The Role of Local District Government

Each of the three states formally specifies that the local school board has the legal responsibility for selecting the specific instructional materials to be used in the district, or for authorizing teachers or administrators to make instructional materials choices. Therefore, we will look at three districts, one in each state, to complete this analysis of policies directly pertaining to the instructional materials selection and evaluation process.

Three large and well-known districts were chosen. Their major demographic features are shown in Table X-8.

Table X-8

BASIC DEMOGRAPHICS OF THREE DISTRICTS

Statistical Feature	Comparison of Districts		
	Jefferson County, Colorado	Dade County, Florida	Philadelphia, Pennsylvania
Number of pupils	70,813	245,242	292,741
Budget (thousands of dollars)	$67,458	$252,708	$450,389
Number of district professional staff	3,683	11,954	17,480

Source: 1972 Census of Governments, U.S. Bureau of the Census

At the state level, Florida issued the most prolific instructional materials selection and evaluation policy and Colorado issued the least, but at the local level the opposite is true. Therefore we will first discuss Colorado, then Pennsylvania, and finally Florida.

Jefferson County School District of Colorado

The strong tradition of local control in education in Colorado calls for each district to develop its own policies for determining who will evaluate and select materials and the procedures and criteria to be used. District policies in Jefferson County (see Figure X-6 and Table X-9) provide a Committee of Teachers and Curriculum Developers to initiate the materials discussion by reviewing available materials and making recommendations for approval, deletion, or rejection of entries of available materials on the county-approved materials list [JC Ed. Pol. 6340.1(I)]. The recommendations for approval are then submitted to a Citizens' Advisory Committee, which reviews the recommendations and issues a report

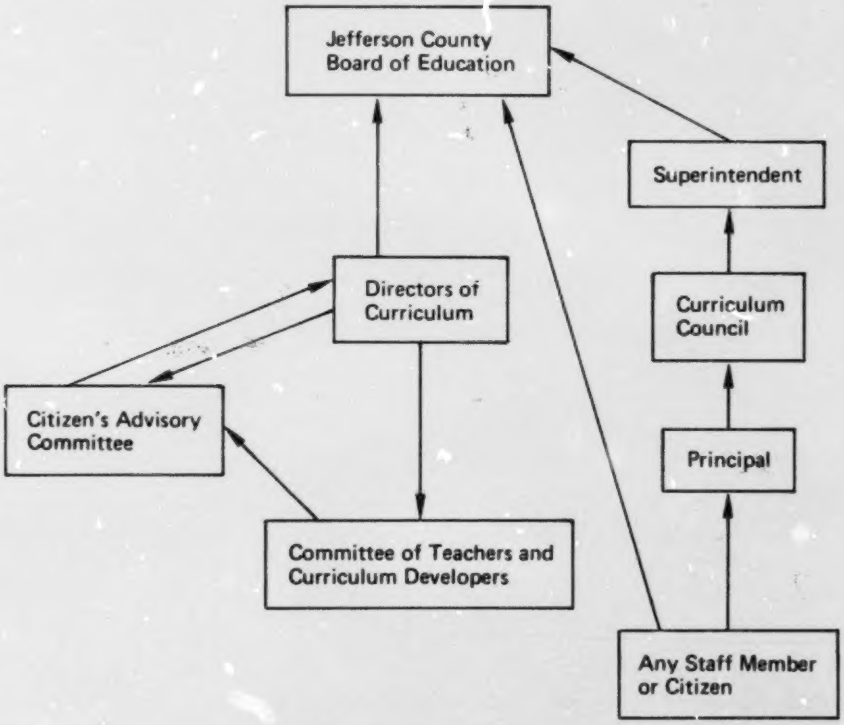

Jefferson County Board of Education
Superintendent
Directors of Curriculum
Curriculum Council
Citizen's Advisory Committee
Principal
Committee of Teachers and Curriculum Developers
Any Staff Member or Citizen

FIGURE X-6 DEVELOPMENT OF A COUNTY APPROVED MATERIALS LIST: JEFFERSON COUNTY, COLORADO

Table X-9

POLICIES AFFECTING INSTRUCTIONAL MATERIALS SELECTION AND EVALUATION: JEFFERSON COUNTY, COLORADO

Committee of Teachers and Curriculum Developers recommends approval, deletion, or rejection of entries on the county-approved materials list [6340.1(I)].

Citizens' Advisory Committee reviews recommendations for approval and submits their report to the Directors of Curriculum [6440.1(B)].

Directors of Curriculum arrange conference between Advisory Committee and Committee of Teachers and Curriculum Developers to resolve differences, if review finds materials recommended for adoption unacceptable [6340.1(IIIC)].

Recommendations of the Evaluation Committee and the Citizens' Committee presented to the County Board of Education for final approval [6340.1(IIIB)].

A request for review of a required material may be submitted by any staff member or citizen at any time. The complainant meets with the principal and the teacher or other agent employing the material in question [6321.1(I)].

If the initial meeting does not resolve the problem, the principal sets up a subcommittee of the Curriculum Council, which meets and reviews material on the case (such material to be provided by the principal) (6321.1).

The subcommittee of the Curriculum Council generates a written recommendation to the county superintendent [6321.1(IC4)].

The county superintendent reviews the subcommittee's report and submits an administrative decision to the County Board of Education [6321.1(ID)].

The complainant has the right to go before the County Board of Education to appeal the superintendent's decision [6321.1(IF)].

The County Board of Education holds the legal authority for approval of materials and is required to approve instructional materials for the standard courses on an annual basis [6340(I)].

Directors compile annually the catalogue of required materials [6340.1(IIIF)].

to the county Directors of Curriculum [6340.1(IIIC)]. If the Advisory Committee report endorses the recommendations of the Committee of Teachers and Curriculum Developers, the report is presented to the local board of education for final approval [6340.1(IIIB)]. However, if the Advisory Committee has a difference of opinion with the Committee of Teachers and Curriculum Developers, the Directors of Curriculum arrange a meeting of the two committees to resolve the differences and generate the necessary consensus of action for the LBE to finalize [6340.1(IIIC)].

Jefferson County policies require that the District Board pass approval annually on all the instructional materials for the schools' standard courses [6340(I)]. Board decisions are recorded by the county Directors of Curriculum, who produce a catalogue of the approved materials [6340.1(IIIF)].

The staffs of each school within the county select materials, and subject area coordinators (see Figure X-7 and Table X-10) transmit this information to the County Director of Purchasing (6340.7). The County Director of Purchasing is responsible for processing all orders for the materials (6340.5); however, the Directors of Curriculum are responsible for ensuring an adequate supply of instructional materials [6340.7(IIA)].

Instructional staff may order materials not on the approval list. However, unless the request concerns a special pilot program, purchase of unapproved texts is usually limited to five copies [6340.5(IIB)].

At any time a staff member or citizen may challenge items on the county's approved list of materials [6321.1(I)]. In such circumstances, a meeting is set up for the complainant with the principal and the agent using the materials in question [6321.1(I)]. If the initial meeting does not resolve the problem, the principal sets up a subcommittee of the Curriculum Council [6321.1) and provides this subcommittee with the material on the case (6321.1). The subcommittee then generates a written

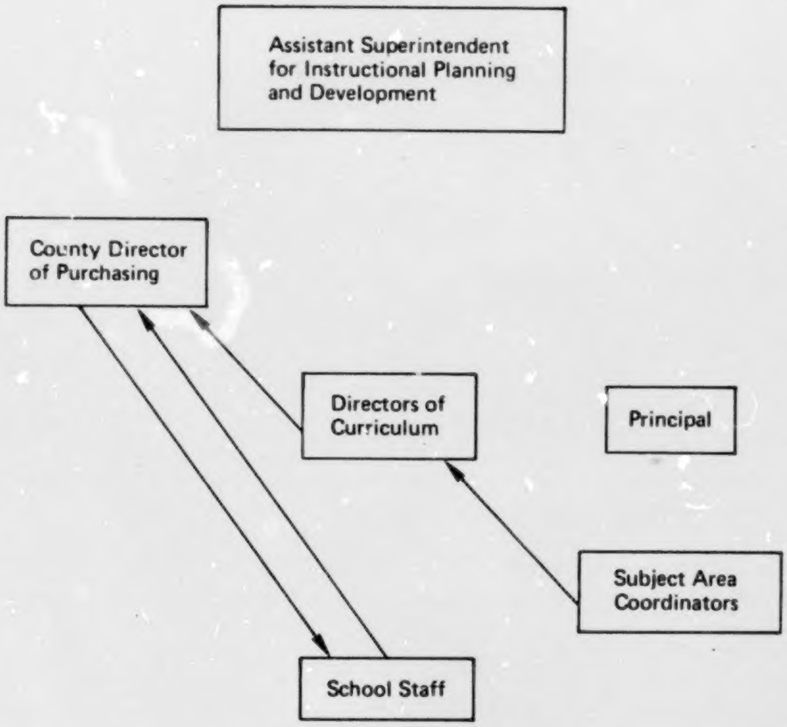

Assistant Superintendent for Instructional Planning and Development
County Director of Purchasing
Directors of Curriculum
Principal
Subject Area Coordinators
School Staff

FIGURE X-7 PROCESS FOR SELECTION AND INSTALLATION OF NEW MATERIALS: JEFFERSON COUNTY, COLORADO

recommendation to the county superintendent (6321.1), who reviews the recommendation, makes an administrative decision, and duly informs the County Board of Education [6321.1(ID)]. This decision normally determines the outcome of the challenge. When the complainant is still dissatisfied, an appeal may be made to the County Board [6321.1(IF)].

Philadelphia School District of Pennsylvania

The process by which the local district conducts instructional materials selection and evaluation is extensively detailed in the Pennsylvania education code and was discussed previously. State policy grants the Philadelphia school board discretion to develop criteria for evaluating instructional materials, to establish contact with publishers,

Table X-10

POLICIES AFFECTING THE SELECTION AND INSTALLATION OF NEW MATERIALS: JEFFERSON COUNTY, COLORADO

Subject area coordinators submit a list to the Directors of Curriculum of the items and quantity needed in stock in the county warehouse [6340.7(IA&B)].

The Directors of Curriculum review the recommendations of the subject area coordinators and transmit the information concerning the necessary warehouse stock to the Director of Purchasing [6340.7(IIA)].

School staff determine desired materials, complete an appropriate requisition card, and submit it to purchasing [6340.5(IA)].

For materials not on the approved list, a special purchase request form is used. Normally schools are limited to five copies of non-approved texts except when the order is part of a pilot program [6340.5(IIB)].

Purchasing receives the requisitions from the schools and processes the orders [6340.5(IB)].

The Assistant Superintendent for Instructional Planning and Development sets the priorities for district support of new curriculum and is responsible for the district inventory of instructional materials [6340.3(I)].

The principals are responsible for maintaining records of the required materials in their schools and for providing an inventory of the instructional materials housed in their schools (6340.6).

to review available materials, and to select and purchase materials (Pa. Ed. Code 8). As a result, little is found in Philadelphia district policy about how to do these activities that is not already found in the state code. However, we do find extensive attention to the actual doing of the activities.

Under the rather awesome charge of the state code that the local district superintendent recommend to the school board materials for adoption, the Philadelphia school board has authorized the local superintendent to establish an Instructional Services Division, which has the following tasks:

- To create and maintain the basic system of criteria to be used in selecting materials.
- To recommend the categories for which new material should be considered.
- To develop specific procedures by which publishers may submit their materials for review and to make purchases when authorized by the board.
- To organize review panels for some 35 categories of materials.
- To transmit the specific recommendations to the superintendent for submission to the board.

The Instructional Services Division transmits to each of the material review panels the set of general instructional materials criteria established by the state code and the local district board, plus any additional criteria specific to the material reviewed by that panel (for example, the state provisions for teaching American government).

Each panel consists of several volunteer teachers in the subject under review. Materials are submitted to them by mid-October, and they return their recommendations for acceptable products as quickly as possible. Materials then accepted by the board are put on file at the official bid price, which accompanied the publisher's original submission of material. Teachers may select materials from this list in the spring, before May 1. The samples of materials submitted for review are maintained in the "Textbook and Instructional Aids" section of the Pedagogic Library in the school administration building, where all school personnel and the public can examine them.

Dade County School District of Florida

The selection of instructional materials in Dade County must be divided into the selection of instructional materials from the state-approved list, and the selection of nonapproved materials within state guidelines. The selection of materials from the state-approved list is straightforward and entails little local district policy. This process was discussed previously. Selection of nonapproved materials entails more complex local policy and must be divided into selection of nonapproved commercial publications, and selection of materials created within the district by district personnel.

Table X-11 summarizes the basic policies that characterize Dade County and the other two districts under study.

Conclusions for Federal Policymaking

This review of the final decision makers in the instructional materials selection and evaluation process leaves two strong impressions. First, great differences exist from state to state and from district to district in the manner of exercising choice and in the criteria preferred. Second, these differences cannot be explained by policies reacting in a cause and effect chain; that is, those policies that do mark a difference are not easily manipulated. They are the symbols of a collective political effort, which must be manipulated by a complex political process.

This observation--that most key policies should be seen as effects, not causes, of basic choices--leads to two questions: "How are these key policies formed?" and "How might one go about changing them?" Such questions require a more detailed review of the actors who set policies at the various governance levels, which is discussed in the following section.

Table X-11

THREE-DISTRICT COMPARISON OF KEY POLICIES

Instructional Materials Decision	Comparison of Districts		
	Jefferson County, Colorado	Philadelphia, Pennsylvania	Dade County, Florida
Type of decision left to the district	Complete discretion in choice of curriculum materials	Choice of materials by state-mandated process	Choice of materials from state-approved list
Principal agent at the district level	Committee of Teachers and Curriculum Developers	District superintendent, with advice and counsel of teachers	
Source of criteria for choosing	Local policy American Library Association Bill of Rights American Association of School Librarians, School Library Bill of Rights National Council of Teachers of English, Student's Right to Read	District-developed: "Some criteria for the selection of books and other instructional materials to be used by the school district of Philadelphia"	Inclusion on state-approved list of instructional materials
Role of teachers	There will be a Required Materials Evaluation Committee for selection of instructional materials for each subject area. This committee shall include one teacher from each administrative area,	State statutory provision that teachers be consulted on materials to be recommended	

IV EXPLAINING INSTRUCTIONAL MATERIALS SELECTION AND EVALUATION DECISIONS: THE CONFIGURATIONAL APPROACH

How much of the instructional materials selection and evaluation decision process have we explained by looking at policy-determined structure in the previous sections? Koerner (1968) offers the following anecdote, which suggests the answer:

> Suppose a local board, aware of the obsolescence and flaccidity of much that passes for vocational training ... decides to reduce its program in these areas. In theory this is one of its sovereign rights. In practice several things occur to change its mind. First, the vocational education lobby goes to work on other members of local government and on the state legislature or state department of education to protect the extensive interests of vocational education teachers [and equipment producers]. Second, the regional accrediting association comes to the aid of the status quo and makes threatening noises, suggesting and then perhaps demanding, on pain of disaccreditation ... that the board rescind its decision. Third, the NEA state affiliate "investigates" and through its considerable power "persuades" the board to a different view.

For better or worse, the decisions by the designated instructional materials decision makers take place in a complex environment. As Koerner's story shows, there are other agents surrounding and actively employing policy strings to affect the local board's choice.

With a little imagination, we can see that Koerner has listed only a few of the possible complications and that these complications occur at all decision levels, beginning at the federal level. Other agents (special interest groups) who exert pressure on policy decisions relative to instructional materials are shown below:

- Religious sects.
- Political groups (Birchers, ACLU, and others).
- Labor unions (AFL-CIO).
- Teachers unions (NEA, AFT).
- Ad hoc parent groups (as in West Virginia).
- Colleges/universities.
- Publishers.
- PTA.
- Regional accrediting agencies.
- Professional accrediting agencies.
- Foundations.
- Other government branches and agencies (especially military and NSF).
- Local and national mass media.
- Special education groups (vocational education and others).
- Private schools.
- Proprietary schools.
- Business (especially employers).
- Testing services.
- Education professors/education critics.

In this section we present a strategy for capturing more of the complex configuration of agents and policies that form the real-world environment for those instructional materials decision makers identified in Section III.* Based on the de facto specialization of instructional materials manufacture and assessment as separate industries, we will add to the basic configuration (see Figure X-1) two more dimensions: agents directly concerned with production of materials, and agents directly concerned with establishing standards and criteria for selection and evaluation (see Figure X-8).

---

*Because this expansion of the configuration adds significantly to the numbers of policies and agents that must be organized and because the resources of our project were to be directed only to development of an analytic framework (not to the conduct of a definitive study of instructional materials selection), only the layout for the next step in this analysis will be developed.

Two more sets of policy immediately become relevant. First is the policy from higher governance levels that affects the boundaries and domains of publishers and assessment agents, and establishes the framework for the interfaces between them and with the main-line education agents (see arrows from A to D and E in Figure X-8). Second is the policy negotiated on the same governance level among publishers, assessment agents, and education system agents (see arrows from B to D, B to E, and D to E). We present below the investigative format called for by the analytic framework to complete the next steps in the analysis.

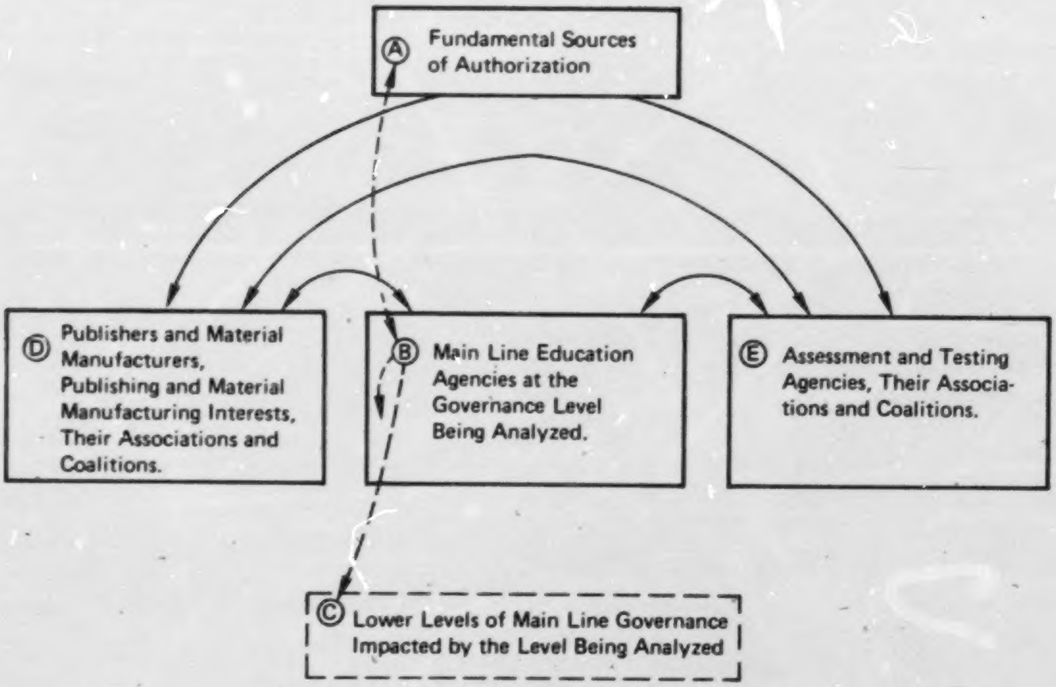
Expanding the State-Level Configuration

Although we have shown that policies and decisions relative to instructional materials exist at federal, state, and local levels, we will use only the state level here as a model for the next step. Because the Colorado Constitution passes almost total responsibility to the local district level, we will take most of our examples from the Pennsylvania and Florida cases.

The steps through which this next phase of the analysis should proceed follow directly from the analytic framework:

(1) Sharpen the specification of the important agencies in the focus of analysis (Step 2 of framework).

(2) Identify the publishing and assessment agencies that deal with agents in the focus of analysis, by looking at the roles and policies in the focus (Step 3 of the framework).


Ⓐ Fundamental Sources of Authorization
Ⓓ Publishers and Material Manufacturers, Publishing and Material Manufacturing Interests, Their Associations and Coalitions.
Ⓑ Main Line Education Agencies at the Governance Level Being Analyzed.
Ⓔ Assessment and Testing Agencies, Their Associations and Coalitions.
Ⓒ Lower Levels of Main Line Governance Impacted by the Level Being Analyzed

Note: Compare this figure with Figure X-1, which describes the set of policies in the main line instructional materials selection and evaluation process. Note that we now emphasize the policies between the IM suppliers and the agents supplying criteria for IM evaluation.

FIGURE X-8 A GENERAL GRAPHIC FOR SHOWING AN EXPANDED CONFIGURATION OF THE INSTRUCTIONAL MATERIALS SELECTION AND EVALUATION PROCESS

(3) Identify the policy-specified configuration linking the three sets of agents (Step 4 of the framework).

(4) Identify the important authorizing agents and policies overriding this configuration, by looking at histories of the policies identified in Step (2) above (Step 3 of the framework).

(5) Identify the policy configuration authorizing the pattern of behavior at the governance level of the focus of analysis (Step 4 of the framework).

(6) Test the adequacy of the configuration against the purposes of analysis; that is, does the configuration fully describe how responsibility for instructional materials selection and evaluation is divided and organized at this level of governance? (Step 5 of the framework).

Sharpening the Focus

To develop a sharper focus for this phase of the analysis, we need only turn back to the figures in Section III that pertain to the state in question. From Figure X-3, for example, we can see that the principal actors at the Florida state level of educational governance are:

- The Florida State Legislature
- An elected Commissioner of Education
- The State Board of Education
- The State Department of Education
- The Instructional Materials Councils.

With this much clarity, we can go to the policy archives for types of policies that might link any of these groups with the publishing or assessment sectors. Reference to the analytic framework's taxonomy of formal policies suggests that we ought to look for potentially significant formal policies of the following types for each of the five groups:

- State Legislature: Statutes (for example, license requirements), regulations.

- Commissioner: Discretionary acts.
- State Board: Regulations, contracts, guidelines.
- State Department: Regulations, contracts, guidelines.
- Materials Councils: Association memberships.

Identifying Important Publishing or Assessment Agencies

Because policies give information on the parties involved and their relationship, the policies linking educators with publishers and assessors can be used to identify the latter. Therefore, by exhaustively examining each of the types of material-relevant policy to which state-level agents are a party, the identification of publishers and assessors should be complete.*

Data gathering for the main-line analysis (described in Section III) provided two insights. The first is that some shift is occurring, with states (and districts) slowly assuming more responsibility for assessment and a little more responsibility for materials manufacture; however, private-sector interests still dominate in both realms. The second insight resulted in the following preliminary list of publishing agencies (on the left) and assessment agencies (on the right):

Publishing houses
Independent printers
Wholesalers
Retailers
Athletic equipment suppliers

Accreditation agencies, both professional and regional
Testing services
The National Assessment
Special interest groups

---

*This process will turn up yet other agents who might be important if the analysis has to proceed through another cycle of expansion to satisfy a more global analytical purpose.

Vocational education and special education specialty firms	Laboratories and centers, when so contracted
Laboratories and centers, when so contracted	

The Configuration of Publishers, Assessors, and Educators

Having identified both the relevant policies and agents in the previous step, one can now develop a map of the overall pattern of their relationships. Unfortunately, even if the analyst has gathered all the information possible, the map will probably be neither complete nor consistent. This problem arises because real-world policy systems are typically neither complete nor consistent, particularly when the subject is complex and heavily value-laden.

Undoubtedly, however, this effort will show that a set of overriding policies from more fundamental sources of authority is necessary to smooth the working relations among publishers, assessors, and educators and provide channels for resolving conflicts and inconsistencies. Moreover, the configuration found in this step is probably precluded from changing in certain ways by these more fundamental policies. If the analyst wants to find how to change the basic shape of a configuration, he will have to explore these policies, which leads to the next step.

Identifying the Fundamental Sources of Authority

Identifying the sources of authority underpinning the agent/policy structure at a given governance level is a straightforward but time-consuming process. Essentially, it requires tracing the policies and role specifications to their sources.* In identifying the underpinning for the state-level configuration of instructional materials decision responsibility, our main-line analysis showed that, at minimum, the following are contributing authority sources:

---

*See Sections IV, V, and VI of the bibliography.

- Constitutional law
  - Federal
  - State
- Branches of federal government
  - Congress
  - President
  - Supreme Court
- Federal agencies
  - DoD
  - Civil Service Commission
  - USOE
  - NIE.

Because the authorizing policies that might be relevant run the full gamut of our policy taxonomy, we must proceed from the policy/agent configuration of the previous analytic step through the structure of the formal policy codification and indexing system to those most relevant.

Our investigation turned up two sets of significant authorizing policy. One is the copyright law that allows publishers to "protect" their ownership of knowledge in a salable form; the other is the federal recognition and use of private accreditation association judgments in accepting personnel into the military and the civil service.

Identifying the Configuration of the Three Groups

The final step in this cycle of analysis would be to combine the configuration of the three groups of agents at the given level with the authorizing agents and policies.

Testing the Configuration Against the Analyst's Purpose

If reflection shows the analyst that his configuration provides enough information to meet his needs, his task is complete. On the other hand, if he has unanswered questions, he must decide how best to direct expansion of the analysis. Clearly, in this case, he might expand the analysis by:

- Shifting the governance level being analyzed.
- Shifting the focus.
    - Expanding or contracting the focus.
    - Shifting to a more detailed analysis of publishers or assessors.
- Expanding the configuration to include more of the specific environment surrounding publishers, assessors, and educators.

V IMPLICATIONS CONCERNING THE INSTRUCTIONAL MATERIALS ADOPTION SYSTEM

The policy descriptions, particularly those in Section III, support a variety of implications about the instructional materials selection and evaluation process. We will discuss three of these below.

Implications for the Instructional Materials Selection and Evaluation Process

The Structure of the Decision Process

Probably the most profound implication relative to the established innovation literature is that adoption of new instructional materials is not permitted if based on isolated individual judgment. Individual educators are not free to make decisions as are farmers or doctors. Moreover, the more an innovation deviates from products the adoption system is designed to handle (for example, films or manipulatives in place of textbooks), the more complex the decisions necessary for adoption and the less likely that local education agents such as teachers or principals will be allowed individually to make the adoption decision.*

To maintain continuity of practice and consensus among parents and educators, a network of controls over instructional materials adoption has evolved. This network of controls seldom allows determinations to be made by one agent or one policy but encourages convergence of policies and agents to produce results. Thus, selection is not the result of monolithic decisions but of accumulations of many judgments on different characteristics by different agents organized in many unique ways.

---

*Even for conventional materials, the Institute for Educational Development (1969) found that teachers are usually allowed to exercise choice only _in small groups_ at the school site or district level, subject to veto and informal sanctions from the principal or superintendent.

Characteristics Evaluated

The policies that regulate the selection process are divisible into three orientations. Some policies focus on who may make which decisions (see Pennsylvania case); typically these policies assign a particular aspect of the overall judgment to a given actor. Other policies focus on which characteristics of the material should be judged, regardless of who does the judging. Finally, some policies regulate what constitutes an acceptable solution.

In particular, the Florida case shows that, although teachers are allowed final approval and always have a veto power over the use of a material, they have little information by which to distinguish among, let us say, five options in the state-approved materials catalogue. In fact, almost the only judgments left are "How easily can I master the use of this material?" and "Will it stand up to the sort of wear my students will give it?"*

Using Policy Knowledge in Dissemination Planning

The final category of implications for the process itself is that pertaining to the design of products and strategies for their dissemination. In many cases, adjusting the product to the setting may be wiser than lamenting that the setting resists the product. Because many levels of governance attend to various product characteristics, it is likely that failure to attend to instructionally insignificant but important policy-related characteristics during the design or dissemination phase causes products to be rejected for spurious reasons. Attention to policy compatibility might pay off as much in improved dissemination as does attention to the basic research underlying the product. All features of a proposed product should be assessed for policy compatibility by asking if the feature is policy-favored, policy-prohibited, or policy-neutral.

---

*In fact, these are precisely the questions the Institute for Educational Development 1969 study on the Selection of Educational Materials in the United States Public Schools found teachers to be addressing.

Issues Unaddressed in This Analysis

Identifying important questions that have been overlooked in a study is sometimes difficult. However, in this study one problem is clear. Because the number of governance levels and the cases examined were so severely limited, it is difficult to form any holistic impressions of the instructional materials selection and evaluation network.

A second limitation is the restricted definition of "instructional material" and the limited range of agents considered in any depth. The full possible range of curriculum matters [as identified by Dr. Sixten Marklund (1975)] is shown below:*

(1) National/state school laws and regulations.
(2) Compulsory schooling.
(3) Structure of diversification.
(4) Lines, streams, grades, relations between primary and secondary, and so forth.
(5) Guidance, special education.
(6) Subjects, major content.
(7) Specific content, courses, individualization.

---

*Items (5) through (13) fall within the domain of research and development in the American system.

(8) Methods of teaching and learning.

(9) Textbooks, learning aids, school equipment.

(10) Testing and evaluation.

(11) Cooperation: school/industry/business.

(12) Cooperation: school/home.

(13) Cooperation: students/teachers.

This full range of curriculum matters and the list of other interested agents suggest that a broader analysis might reveal important interconnections between this process and the education system in which it lies. Unfortunately, each such expansion of analytic scope causes a geometric increase in the amount of policy that must be considered. A thorough investigation of the concept would require broadening attention in at least three ways. Attention should be given to:

- A broader concept of instructional materials that includes structure of school day and year, use of public and industrial plants as learning sites, selection of personnel as biasing choice among materials, and so forth.
- The emergence of a fourth task, "program evaluation," in parallel with publishing, assessment, and selection.
- The coordination of materials decisions with the full range of curriculum matters, both because of a need for compatibility and because of the growing competition for limited education funds.

Implications for Federal Agencies

Our strongest impression from this analysis is that the selection process, while convoluted, is far from sophisticated. This lack of sophistication probably arises from the continual pressure in our system to attend to the education process itself and not to the management of that system. This observation is supported by policies followed in the late 1960s to create "teacher-proof" materials and "SEA-LEA-proof" dissemination strategies. The greatest need at this time is for attention and resources to be directed toward developing the governance system of education, as opposed to continual research in materials for children to use.

Unfortunately, this concept flies in the face of a basic philosophy that educators have adopted--that education and politics should be as separate as are church and state. In fact, many of the decisions made by educators are matters of value judgment that deserve attention as such; such decisions should not automatically be delegated to professionals as if they were technical matters. To get better decisions on materials, we must improve the quality of the decision-making process.

Annex A

THE USE OF THE ANALYTIC FRAMEWORK IN THIS CASE STUDY

Annex A

THE USE OF THE ANALYTIC FRAMEWORK IN THIS CASE STUDY

About the Methodology Generally

The conceptual system used to guide the inquiry for this case study is a newly developed methodology called the Analytic Framework for Education Policy Analysis. A thorough discussion of this methodology, its origins, and its foundations in the philosophy of inquiry is presented in Volume I of this report. A brief description can be found in Mandel and Markley (1975). This annex is only a discussion of how the methodology was used to shape this specific inquiry.

The methodology has five steps through which one repeatedly cycles, until it is possible to say the tapestry is complete. If the analyst has chosen some subject of interest in which he believes the major elements are human agents, policies, goal-oriented activities, and related resources, he will find the analytic framework appropriate for guiding his inquiry. The framework suggests he proceed through the following steps:

(1) Clarify the reason for the analysis, both in terms of the intended audience and a best guess at the main problem.

(2) Select a focus and field of analysis. The world is usually too complex to collect all the data about a subject, so one must identify those elements that are most likely to be significant or those that require the most detailed knowledge.

(3) Begin collecting specific data about the elements. Selection from a variety of data collection methods becomes important here, depending on the elements and the purpose of analysis--survey analysis, anthropological, legal archival, or the like.

(4) Begin pulling the evidence together to weave an image of the system under consideration. Use a variety of configuration maps and cycle through Steps (3) and (4) until the maps "feel" complete.

(5) Reflect on the power of the maps to satisfy the purpose of analysis. Depending on the adequacy, refine the purpose of analysis, Step (1), and the focus of analysis, Step (2), as needed, and repeat Steps (3), (4), and (5) until a satisfactory outcome is reached.

How the Methodology Was Used to Conduct This Inquiry

This analysis was conducted by following the five steps mentioned above. However, reconstruction of events shows three full cycles through the steps.

In the first cycle, Section II was outlined. The following preliminary statement of purpose was formed:

> Identify the role of policies in determining curriculum reform through instructional materials innovation.

Then the overall structure of the approach was laid out. Elements for study were selected, and a plan for mapping their connections was developed. Reflection on the likelihood of the approach to reach the goal revealed no major obstacles.

The second cycle began with the attempt to collect the data for Section III. However, the first serious problem immediately surfaced. The purpose of analysis and the focus/field of analysis first chosen were so broad that they yielded too much material and required more resources than were available for the study. So the purpose of analysis was further refined:

> What policies control the structure, process, and outcomes of the instructional materials selection and evaluation process?

Because much work in excess of available resources was still required, the focus and field of analysis were further limited to include only the seven formal levels of educational governance, as seen at the federal level and in three states (see Annex C).

Data collection was resumed. However, a study of formal policy records soon revealed that only three governance levels (the federal, the state, and the local district) had significant roles in selecting instructional materials. Since the study was being conducted as a test of the analytic framework and as a preliminary feasibility study for a comprehensive study, the importance of these three governance levels was used to further limit the purpose of analysis:

> What policies control the structure, process, and outcomes of the instructional materials selection and evaluation process at the federal level; at the state level in Colorado, Florida, and Pennsylvania; and at the district level for one district in each of these states?

The analysis was then completed (see Section II).

Reflection on the adequacy of the analysis in Section III [as called for in Step (5) of the analytic framework] suggested two inadequacies. Indeed, the story seemed too narrow in light of what we knew from talking to educators in the three states. First, despite the apparent power and smooth structure of the formal selection and evaluation process, we were told it did not actually work that way. Second, we were told that two other processes--that also strongly affected the outcomes--were occurring in parallel with instructional materials selection and evaluation (publishing and assessment). Therefore, we again modified the purpose of analysis:

> What policies from the governance levels already studied pertain to the tasks of publishing and assessment so as to indirectly but strongly affect the instructional materials selection and evaluation process?

Using this purpose, we set up the third cycle of analysis, as discussed in Section IV.

How the Analytic Framework Was Tested in This Case Study

An approach to conceptualizing a problem must be judged in at least two ways. First, if one steps back from the effort and views it within his total experience, does it contribute something positive overall? Is that "something" worth the effort? Second, if one assesses specific features, characteristics, or parts of the approach, do they contribute positively to the overall product? Are they worth the effort?

This case study should be used to test the analytic framework primarily in the first way. The authors are satisfied that, overall, the approach yielded worthwhile results. The reader may not agree. We suggest three questions the reader might ask in making his judgment:

- Did the approach identify and organize the important elements and configurations in instructional materials selection and evaluation?
- Did the approach reveal the major sources of policy problems?
- Does the approach allow one to extrapolate the appropriate "next steps" for tasks such as planning NIE's role in this process, or assessing the desirability of a more thorough study?

Annex B

INCIDENTAL OBSERVATIONS ON THE ROLE OF POLICY IN INSTRUCTIONAL MATERIALS SELECTION AND EVALUATION

Annex B

INCIDENTAL OBSERVATIONS ON THE ROLE OF POLICY IN INSTRUCTIONAL MATERIALS SELECTION AND EVALUATION

Following is a collection of observations, questions, and tentative hypotheses formed during the development of this topic. They are organized into three sections:

- Tentative conclusions about the effects of the policy-specified structure of decision making responsibility for materials.
- Tentative conclusions about policies affecting specific decisions on innovations in instructional materials.
- Tentative conclusions about existing or needed trends in our (NIE's) approach to instructional materials policy.

Following are tentative conclusions about the effects of the policy-specified structure of decision responsibility.

(1) In descending order of authority, the state level, the local level, and the school site have direct opportunity to expand or modify curriculum.

(2) Their options, many of the criteria they must use, and even their right to choose are typically set outside their control at every level.

(3) Single specific policy changes can/may not have much effect on curriculum (except those mandating a specific new practice at the microlevel).

(4) Most instructional materials decision makers are formally granted large domains of freedom, but cannot take advantage of them because (a) informal norms limit them, (b) they lack energy/courage/imagination, or (c) formal policy/products/activities overlap from the three coordinate task areas (publishing, assessment, main-line education).

(5) The structure has built-in disincentives toward pluralization of instructional material content and types, particularly from "standardizing" assessment agencies.

(6) Conversely, the structure does have built-in incentives to select noncontroversial instructional material (Wirt and Kirst, 1972, p. 33).

(7) Curriculum change takes place in a loose but highly focusing system; therefore, only a few changes can get through all the steps.

(8) Innovation in instructional materials should be viewed from the state and federal levels as a political rather than a rational EKPU process (the latter view tends to let only a few have any voice). Instructional materials have open and hidden value as well as technical components, and therefore deserve political attention.

(9) Adoption of instructional materials is a multistep process; it requires a concert of decision makers at different levels with different values.

(10) Until state government and federal government undergo transformations to (a) value educational pluralism and (b) attend to policies governing the structure of instructional materials selection and evaluation, little change will occur in the types of instructional materials adopted.

(11) Little structural opportunity exists for the community to address the value aspects of instructional materials selection and evaluation.

(12) No structural mechanism is designed to cope with the tension of providing both shared and pluralistic educational experiences. This problem is compounded by educational reforms of the early 1900s and our resulting preference for resolving curricular problems through compromise. Therefore, we "solve the problem" by turning to the instructional materials, subjects, and methods having the lowest denominator of conflict.

(13) More politics in instructional materials selection and evaluation does not mean decentralization or centralization. The problem is hierarchic. We need a strong central guarantee of localism and support of differentiation locally, and organization at the local level by values and interests. Currently, this can be accomplished only by those who can afford private schools.

(14) Pluralistic differentiation of education at and among school sites requires districts large enough and coordinated enough to support specialization, while retaining efficiency, opportunity, and freedom. Therefore, the role of federal policy should be to separate technical from value issues at state and local levels and to help complex governance structure evolve. (This does not mean an increase, but a decrease, in central staff.) A central problem is that we still have a decision structure too simple for the complexity of value issues entailed.

(15) The structures for assessment and for reporting results to the public must be improved.

(16) An ideal structure for local innovativeness relative to instructional material would have:

- (a) A large district (20 sites) differentiated by site, with a "differentiate" mandate from the state.
- (b) Some basic districtwide criterion-reference testing.
- (c) School-site control of curriculum and instructional material, and full parental choice of school site for their children (supported by public transportation).
- (d) Technical issues separated from value issues and both discussed in parent/teacher councils.
- (e) Districtwide teacher negotiation of wages and fringe benefits.
- (f) School-site hiring of teachers based on philosophy compatibility ("3 Rs" at one site, "free school" at another, and so forth).
- (g) Site hiring of principal (concurrence of school site, parents, teachers, and LBE).
- (h) School board members who are elected on policy advocacy roles and are paid a salary making the job accessible to lower income persons.
- (i) Timely public input into and review of line-item school budgets.

Following are conclusions about tentative policies affecting specific decisions on innovations in instructional materials.

(1) Choices at lower governance levels (especially at or below the local district) (a) are made primarily among packages, (b) are made within set standards, and (c) fit well-specified slots; that is few significant structural changes can be made.

(2) The decision process is organized well enough to require (or provide incentives for) many technical changes, especially in teaching style, so long as the labor/capital ratio is not disturbed and major teacher retraining or role differentiation is not required.

(3) The decision process has major disincentives relative to pluralization of curriculum content; such disincentives are based on economics and the naive images of "equal opportunity."

(4) Florida's new school-site governance probably will not produce real change in the local curriculum unless accompanied by (a) a change in the way curriculum standards and criteria are set and (b) pressures on producers for alternative curriculum packages.

(5) The quickest way to achieve real change in classroom instructional materials selection and evaluation is to manipulate the standards for assessment. Therefore, NIE might focus on how the "national assessment" task can be improved, expanded, and best governed (for example, by giving federal funds only to those who get results).

(6) (Standardized) assessment ought to evaluate minimum common ends rather than try to enforce standard means.

(7) Standards for instructional materials selection and evaluation can be directly controlled in a centralized system; in a decentralized system, controls are symbols of agreement, and thus are the result, not the means, of control.

(8) A basic tension exists between the ideal of providing a shared experience and frame of reference for all members of society and the ideal of encouraging pluralism and preservation of distinct cultural heritages. This tension explains why we cannot treat instructional materials selection and evaluation in isolation.

(9) Adoption of a proven instructional material can fail for three policy reasons (and myriad pragmatic reasons):

(a) No mechanism is provided to identify or support the adoption.

(b) A conflict with policy exists on one or more characteristics (often not related to instructional effectiveness).

(c) The innovation is fine in isolation, but "unhealthy" or unsuited to the adopting environment.

(10) Most conflicts over instructional materials are solved by compromise designed to foster homogeneity (for example, no religion in schools instead of differentiated classes). Policy generally does not favor differentiation. We are often not legally allowed to agree to and defend the right and opportunity to be different, especially at public expense. (Perhaps the wrong issues are finding places on the agendas of higher level decision makers. For example, the Florida legislature decides what shall be taught, rather than attending to the decision structure for the selection and evaluation of instructional materials at the district and school site levels.)

Following are tentative conclusions about existing needed trends in our (NIE's) approach to instructional materials policy.

(1) Existing trends

(a) The formalization and rise of a distinct fourth task, that of formal program evaluation. The evidence lies in the current cry for economic accountability. Consider, for example, California's Stull Bill and similar bills; the National Assessment; the increased federal and state demand for evaluation; and the continued growth in certification in all professions. The problem is to avoid "friendly facism" (Gross, 1970; Harman, 1972).

(b) Regional accreditation going national or federal (probably federal). The government rather than private associations is growing in strength.

(c) Growth in state involvement in accreditation.

(d) Selection of instructional materials becoming more political as decisions entail greater shifts from the status quo.

(e) Continuation of the major conflicts in specific instructional materials decisions; for example, the professional decision versus the lay decision (the technical decision versus the value decision); individualization versus standardization; and the cohesive versus the segmental (whether time series or conceptual).

(2) Needed trends (these border on recommendations)

(a) The curricular structure is a standoff of balanced interest, and either of two basic strategies are necessary for substantial change. The first is to shift the balance (for example, add or subtract force or motivation for interest groups by shifting resources); NIE should follow this strategy. The second is to change the structure of the governance system (who is pitted against whom); NIE should argue for this change in both federal and state legislatures.

(b) The policy of no politics in education is unrealistic and dysfunctional. Political involvement in curriculum should be promoted without raising its "bad" connotations (for example, by referring to it as "citizen participation" rather than as "politics"). Instructional material selection is too important to leave to educators.

(c) In an employment-specialized and culturally pluralistic society, the search for "The One Best System" is dysfunctional; we must legitimize, promote, and protect educational pluralism.

(d) The following policies are worthy of promotion:

1) Encouraging variety in teacher training programs. This policy will be opposed by teacher unions, which will fear it will break their ranks and create classes within the profession. States now have standard teachers' credential programs that promote sameness, except for differentiation by academic subject taught and years of teaching experience.

2) Encouraging variety in standardized tests (paradoxically, ETS now standardizes).

3) Encouraging schools to move into career and life planning (especially as quality-of-life issues arise).

4) Politicizing education, but calling it "parent/ citizen participation."

5) Making the standard setting a matter of public debate.

6) Adding political skills to training programs for teachers and administrators. (Teach them how to go to the public, not to fear public influence.)

(e) NIE should encourage federal support of experimental structures for instructional materials selection and evaluation.

(f) Real "curriculum" reform must treat the whole "connected" beast. For example, the state should be treated as one organization, as should perhaps the whole nation, or at least a region.

(g) Timing is crucial to some instructional materials movements (for example, the timing of Sputnik); therefore, one must monitor and watch for social trends.

(h) Major tensions result not only from science, technology, and scientific method versus society, values, and politics--as strategies for problem solving. Tensions are also seen as innovation versus classic tradition (as evidenced in some prep schools), or as the religious versus the secular (for example, schools of the Amish, the Orthodox Jews, and the Catholics).

(i) NIE would benefit by monitoring the following aspects of policy relative to instructional materials selection and evaluation:

1) NIE should monitor policies that allocate responsibility for instructional materials selection and evaluation decisions. This will provide data for manipulating this structure and for planning dissemination strategies for specific products.

2) From the perspective of systems theory, NIE must behave as a superordinate rather than coordinate policymaker, if local and school-site governance agents are to be given real opportunity to make greater choice. (It takes a higher level to ensure the freedom of the lower level from

encroachment by the middle level.) This implies engaging in real political confrontation with the states and collecting data/testimony directly from LEAs and school sites.

3) A major policy study is needed to show how NIE can begin assessing and articulating standards and criteria that are used nationally to assess and guide curriculum decision systems.

Annex C

HOW THE CASE STUDY STATES WERE CHOSEN

Annex C

HOW THE CASE STUDY STATES WERE CHOSEN

Colorado, Pennsylvania, and Florida were chosen to provide variety in two dimensions:* demographics and political culture.

Demographics

The case study states were selected to provide variety on the following demographic characteristics (see also Table C-1):

- The size of the education budget for the state, assuming that some costs for instructional materials are sensitive to economies of scale.
- The number of school districts, as an indicator of the number of local agencies that might participate in the instructional materials selection and evaluation process.
- The average district size, as an indicator of the size of a districtwide purchase of materials.

Political Culture

The case study states were selected to provide variety on three characteristics of the state education code that indicate differences in their basic philosophies toward the control of education (see also Table C-2):

---

*We also found major differences among the states in the organizational structure of state-level educational governance. We did not use this dimension, however, because research to date shows that such differences do not significantly differentiate local school curricula (Campbell and Mazzoni, 1974). They seem to change only the strategy for promoting an instructional materials policy decision, not the actual outcomes of those decisions.

- The locus of control of minimal teacher's salaries
- The locus of control over the basic curriculum
- The locus of control of textbook adoption.

Table C-1

DEMOGRAPHIC COMPARISON OF SAMPLE DISTRICTS WITHIN CASE STUDY STATES (1971-72)

Statistical Feature	Colorado	Pennsylvania	Florida
Size of gross education budget (in thousands)	$626,495	$2,910,107	$1,380,407
Number of school districts	181	511	67
Average enrollment per district	3,118	4,639	22,067

Table C-2

DIFFERENCES IN POLITICAL CULTURE AS REFLECTED IN THE BASIC PHILOSOPHY OF THE STATE EDUCATION CODE

Policy Feature	Colorado	Pennsylvania	Florida
Control of minimum teacher salaries	Local district	State	Local district
Control of curriculum selection	Local district	Guidelines from the state, with activities clearly delegated to the district	State and local, within state guidelines
Control of textbook adoption	Local district	Local district, within state guidelines	Seventy-five percent from state-approved list; 25% within state guidelines

Unique Features

In addition to the characteristics already cited, Colorado was chosen because of the emphasis on local control repeatedly mentioned by Colorado educators in the footwork done for the BOCES topic (see Case Study VIII). Pennsylvania was chosen because it has recently adopted a structure that places the CSSO in the governor's cabinet. Florida was chosen because it has recently adopted a program to develop organized parental input by means of school-site governance councils.

Annex D

TAXONOMY OF POLICIES CONSIDERED SIGNIFICANT IN THE STUDY OF THE INSTRUCTIONAL MATERIALS SELECTION AND ADOPTION PROCESS

Annex D

TAXONOMY OF POLICIES CONSIDERED SIGNIFICANT IN THE STUDY OF THE INSTRUCTIONAL MATERIALS SELECTION AND ADOPTION PROCESS

Policy Name	Reference Citation	Policy Type and Generation Process	Source	Explanation of Significance
U.S. Constitution	Amendments 9 and 10, U.S. Constitution	Constitutional (Constitutional)	Federal (Constitutional) (U.S. Constitutional Convention)	Interpreted to preclude federal government from making direct policy mandates concerning curriculum in the public schools.
Florida State Constitution	Article 9, Section 1, Florida State Constitution	Constitutional (?)	State (Constitutional) (Florida)	People of Florida authorize the state legislature as controlling agent over matters of education in Florida.
Florida State Code provision for courses of study and instructional aid	Chapter 233, Florida Education Code	Statutory Law (Enactment)	State (Legislative) (Florida State Legislature)	Florida statutory law governing the instructional materials selection process.
Colorado State Constitution	Article IX, Sections 15-16, Colorado State Constitution	Constitutional (?)	State (Constitutional) (Colorado)	People of Colorado authorize the local boards of education as controlling agent over matters of education in Colorado.
Jefferson County Colorado, instructional materials and controversial matters policy	Jefferson County Public Schools, Policies 6340 and 6321	Statutory Law (Enactment)	Local (Administrative) (Jefferson County Public School Board of Education)	Example of a Colorado county's policy on instructional materials selection and adoption.
Pennsylvania State Constitution	Article 3, Section 4, Pennsylvania State Constitution	Constitutional (?)	State (Constitutional) (Pennsylvania)	People of Pennsylvania authorize the state legislature as controlling agent over matters of education in Pennsylvania.
Pennsylvania State Code provisions for books, furniture, and supplies	Chapter 1, Section 8, Pennsylvania Education Code	Statutory Law (Enactment)	State (Legislative) (Pennsylvania state legislation)	Pennsylvania statutory law governing the instructional materials selection and acquisition process.
School District of Philadelphia statement to publishers of textbooks and instructional materials, June 30, 1975	Not codified (Philadelphia School District Policy Archives)	Administrative Law	Local (Administrative) (Philadelphia School District)	Example of a Pennsylvania district's policy on instructional materials selection and adoption.

BIBLIOGRAPHY

Aiken, W., The Story of the Eight Year Study (Harper & Row, Publishers, New York, New York, 1942).

Black, H., The American Schoolbook (William Morrow & Co., New York, New York, 1967).

Campbell, R. F., and T. L. Mazzoni, Jr., State Governance Models for the Public Schools (The Educational Governance Project, Ohio State University, Columbus, Ohio, 1974).

Chamberlin, C., Did They Succeed in College? (Harper & Row, Publishers, New York, New York, 1942).

Conant, J. B., The Comprehensive High School: A Second Report to Interested Citizens (McGraw-Hill, Inc., New York, New York, 1967).

Goldberg, A. J., Equal Justice, The Warren Era of The Supreme Court, 1971 Rosenthal Lectures, Northwestern Law School (Northwestern University Press, Evanston, Illinois, 1971).

Gross, B. M., "Friendly Fascism: A Model for America," Social Policy (November-December 1970).

Harman, W., "Societal Foundations for Change: Educational Alternatives for the Future," in Emerging Issues in Education, Policy Implications for the Schools, J. E. Bruno, ed. (Lexington Books, Lexington, Massachusetts, 1972).

Jacob, H., and K. Vines, Politics in the American States (Little, Brown & Co., Boston, Massachusetts, 1972).

Koerner, J. D., Who Controls American Education" A Guide for Laymen (Beacon Press, Boston, Massachusetts, 1968).

Lippitt, R., "The Teacher as Innovator, Seeker, and Sharer of New Practices," in Perspectives on Educational Change, R. Miller, ed., pp. 307-324 (Appleton-Century Crofts, New York, New York, 1967).